

North Korean Nuclear Deterrence: A Myth or a Reality?

An Analysis of North Korean Deterrence
Credibility toward the United States and
South Korea

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North Korean Nuclear Deterrence: A Myth or a Reality?

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Abstract

In this thesis the Democratic People's Republic of Korea (DPRK) is used as a case to explain the role credible deterrence plays in the 21st century. The goal is to contribute to our understanding of the complex dynamics relating to nuclear weapons between the DPRK, the United States and the Republic of Korea (ROK). It also sheds light on factors that may increase or decrease North Korean deterrence credibility.

The main objective is to understand DPRK's nuclear weapons program and explain North Korean deterrence credibility. This thesis does this by drawing upon literature and information provided by respondents through conducted elite interviews. The study uses the information provided to discuss to what extent DPRK's nuclear weapons deter the United States and the ROK. The analysis goes deeper into the relationship between the three states and their nuclear weapons. The aim is to describe the role of deterrence and explain its impact on the relationship between the DPRK, the United States and the ROK. It identifies North Korean nuclear abilities and its will to use nuclear weapons against another state, and it discusses to which degree the United States and the ROK feel threatened by North Korean nuclear weapons.

The findings indicate that the United States and the ROK is partially disposed to DPRK's nuclear deterrence because the DPRK do not at this moment have a reliable capability to hit the continental United States with nuclear weapons, but the DPRK has the capability to hit targets in the ROK, and American vital interests outside of the United States. Even though the DPRK can hurt the United States and the ROK with nuclear weapons, it seems unlikely that the DPRK would use nuclear weapons against another state because it appears that the leadership is a rational actor and regime survival is of greatest importance. The thesis argues that the DPRK is unlike any other country, and this makes predicting what the DPRK will do in a given situation almost impossible.

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Acronyms

B-2	An American strategic bomber also known as the Stealth Bomber
B-52	A long-range, subsonic, jet-powered strategic bomber
DMZ	Demilitarized zone between the DPRK and the ROK
DPRK	The Democratic People's Republic of Korea
FFI	Norwegian Defence Research Establishment
HEU	Highly Enriched Uranium
IAEA	International Atomic Energy Agency
ICAN	International Campaign to Abolish Nuclear Weapons
ICBM	Intercontinental Ballistic Missiles
KCNA	Korean Central News Agency
KPA	Korean People's Army
NATO	North Atlantic Treaty Organization
NNWS	Non-Nuclear-Weapon State
NPA	Norwegian People's Aid
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
PSI	Proliferation Security Initiative
NUPI	Norwegian Institute of International Affairs
NWS	Nuclear-Weapon State
ROK	The Republic of Korea
UN	United Nations
UNSC	United Nations Security Council
UNSCR	United Nations Security Council Resolution
USSR	The Union of Soviet Socialist Republics
WMD	Weapons of Mass Destruction

1 Introduction

Nuclear weapons are weapons of mass destruction (WMD), and weapons surrounded by massive secrecy. It is estimated that the world's nuclear states possess around 17,000 of these weapons, but the secrecy prohibits most people from knowing the exact number. These 17,000 nuclear weapons are divided between eight or nine nuclear states¹ and located in 13 or 14 different countries² (Federation of American Scientists, 2013; Høibråten, Halvor Kippe, Breivik, Heireng, & Enger, 2013).

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology. It also works to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear disarmament and general and complete disarmament. The NPT was opened for signature in 1968 and entered into force in 1970. More countries have adhered to the NPT than any other arms limitation and disarmament agreement (NPT, 1968). The NPT classifies states into two groups, nuclear-weapons states (NWS) and non-nuclear weapons states (NNWS). The NWS are the United States of America, the Russian Federation (Russia), the United Kingdom, France and the People's Republic of China. These are states which had "manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January, 1967" (NPT, 1968). These countries are allowed to keep their arsenals for the time being, but are through the NPT obliged to work towards full disarmament. The NNWS on the other hand are not allowed to possess or develop nuclear weapons through the NPT. The NNWS are also required to develop and adhere to a Safeguard Agreement³ with the International Atomic Energy Agency (IAEA). IAEA was established as an autonomous organization on 29 July 1957. The IAEA is responsible for verifying compliance with the NPT and is allowed to conduct onsite inspections on all declared nuclear facilities to the NNWS who are party to the treaty. The IAEA also seeks to promote the peaceful use of

¹ Israel has never confirmed nor denied to possessing nuclear weapons. Various reports indicate that Israel does in fact have nuclear weapons, but since this never has been proven one always refers to eight or nine states when speaking of states that possess nuclear weapons. Israel is the ninth state.

² On top of the eight or nine states possessing nuclear weapons, Belgium, Germany, Italy, the Netherlands and Turkey are hosting approximately 150-200 American B61 tactical (nonstrategic) nuclear weapons on their soil as part of a NATO nuclear-sharing arrangement (ICAN, 2014).

³ The IAEA has safeguards agreements in force with over 170 States around the world. Most of these are comprehensive safeguards agreements concluded pursuant to the NPT. Other types of agreements are known as voluntary offer safeguards agreements (in force with the five NPT nuclear-weapon States) and item specific safeguards agreements (in force with three States not party to the NPT) (IAEA, 2013)

nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons (Fischer, 1997).

A third category is used for states that have conducted nuclear test after 1 January 1967. These states can only be classified as NNWS according to the NPT. India, Pakistan and the North Korea, officially the Democratic People's Republic of Korea (the DPRK), and sometimes Israel are referred to as *de facto* NWS, but this is not an official category. India and Pakistan never joined the NPT and have demonstrated their possession of nuclear weapons through test explosions. The DPRK withdrew from the treaty in 2003 before conducting its first nuclear test in 2006 and Israel has never confirmed nor denied to having nuclear weapons, but various reports indicate that Israel is in fact a *de facto* NWS (Heireng & Enger, 2010, pp. 9–10; Høibråten et al., 2013). The information available for each country's nuclear weapons program varies greatly. The most transparent nuclear weapons state is the United States while the most opaque is the DPRK (Federation of American Scientists, 2013). Estimates for several of the nuclear weapon states are highly uncertain (Federation of American Scientists, 2013)

Table 1.1 *Total number of nuclear warheads*

Country	Total number of nuclear warheads				
	Operational ⁴ Strategic	Operational Tactical	Reserve/ Non- deployed	Military Stockpile	Total Inventory
Russia	1,800	0	2,700	4,500	8,500
United States	1,950	200	2,500	4,650	7,700
France	290	n.a.	?	300	300
China	0	?	180	250	250
United Kingdom	160	n.a.	65	225	225
Israel	0	n.a.	80	80	80
Pakistan	0	n.a.	100-120	100-120	100-120
India	0	n.a.	90-110	90-110	90-110
the DPRK	0	n.a.	<10	<10	<10
Total	~4,200	~200	~5,800	~10,200	~17,300

(Federation of American Scientists, 2013)

⁴ Tactical and strategic nuclear weapons are the two main categories when it comes to nuclear weapons. Tactical nuclear weapons (also known as non-strategic nuclear weapons) are made to be used on the battlefield in a military situation. Strategic weapons are the opposite; they have a more classic deterrent effect. They are made to be used to damage the enemy's ability to fight a war and are to be used against cities. Tactical nuclear weapons constituted a large part of the peak nuclear weapons stockpile levels during the Cold War (Federation of American Scientists, 2013).

All NWS insist that nuclear weapons are essential to their national security (Norris & Kristensen, 2010, pp. 82–83), but nuclear weapons have only been used twice in war. The first time was 6 August 1945 when the United States dropped an atomic bomb on Hiroshima, Japan; three days later, it released the second bomb on Nagasaki (Thelle, 2013, p. 8). Even though these weapons have not been used in anger since 1945, are they supposedly important for eight or nine of the world's most powerful countries' national security. An important question is why.

During the duration of the Cold War, the rivalry between the United States and the Union of Soviet Socialist Republics (USSR) defined the international society and the world we live in. The bombing of Hiroshima and Nagasaki changed the nature of the international system and the laws that govern it in an instant. The world before the bombings was fundamentally different from the world that followed (Zagare & Kilgour, 2000, p. 3). At that point, Bernard Brodie argued that “the chief purpose of our military establishment (had) been to win war. From now on its chief purpose must be to avert them; it can have almost no other purpose” (Brodie, Dunn, Wolfers, Corbett, & Fox, 1946, p. 76). The multipolar Eurocentric world did no longer exist after 1945; it had been replaced by a system dominated by two superpowers from the periphery of the European state system. It was in this context that classical deterrence theory was born, and it matured in the 1950s and 1960s and many strategic thinkers nurtured its growth. With seemingly good reason, the principles of the theory became, in both academic and official circles, the conventional wisdom. Not only did classical deterrence theory explain the absence of a United States of America – USSR war after 1945, but if properly observed, could be used to all but eliminate the possibility of future superpower conflict (Zagare & Kilgour, 2000, p. 4).

In recent years, several books and articles have been written that both denounce and support the effectiveness of deterrence in relation to nuclear weapons. Ordinary deterrence sometimes fails even though the consequences are severe, still nuclear theorists claim that nuclear deterrence is more reliable, and deterrence theory claims to know the answer to why these eight or nine countries hold on to their nuclear weapons. According to them is deterrence the best defense possible. This study aims to shed light on to which degree deterrence in the 21st century “works” according to classical deterrence theory. This thesis will do this by going deeper into the relationship between states and their nuclear weapons. The aim of this study is

both descriptive and explanatory. It wishes to describe the role of deterrence and explain its impact on relationship between states.

1.1 Research Question

The main focus of this study is to examine how *the United States and the Republic of Korea are disposed to the Democratic People's Republic of Korea's nuclear deterrence?* This question will be answered by looking at two sub-questions *a) are DPRK's nuclear threats towards the United States and the ROK credible?* and *b) are the United States and the ROK's vital interests exposed to DPRK's deterrence?*

This thesis is a case study of the DPRK. It focuses on which degree North Korean nuclear weapons deter the United States and the Republic of Korea (the ROK). The main research question combined with the two inter-related questions may indicate whether or not DPRK's nuclear weapons have a deterrent effect. In terms of the first question, there are a lot of speculations on whether or not a deterrent power's opponent is actually disposed to deterrence. With regards to question *a* it is fundamental to look at the credibility of deterrence threats when answering question *b* it is important to identify a country's vital interests and also whether or not these interests get threatened when one is exposed to deterrence.

To answer the research questions, the thesis will draw upon the concept of deterrence and theories related to this. The aspects introduced in the three research questions will be elaborated and defined in the chapters and sections that the aspects are introduced. This part of the thesis will just shortly introduce the reader to the different aspects. Deterrence is broadly defined as the threat of force intended to convince a potential aggressor not to undertake a particular action (Gerson, 2009, p. 34). This is because the cost will be unacceptable or the probability of success extremely low (ibid). This concept will be thoroughly discussed in Chapter 3 and Section 3.3. A threat is a liable declaration that signals an intention to hurt somebody unless that somebody acts in the way that the threatened wants to. The hurt inflicted on someone can be physically, economically, or otherwise and can also be inflicted directly or indirectly on the target (Hovi, 1998, p. 12). A threat can be considered effective if the one targeted changes its behavior in accordance with the threatener's wishes and five conditions have to be fulfilled for a threat to be considered effective. These conditions are; relevance, severity, credibility, complete and clarity. Effective will be

operationalized in Chapter 5 and reasons will there be given to why the focus in this thesis is on credibility. What one defines a vital interest is a complicated issue; some interests may be vital, while others may be less vital. It is also known that states have altered their opinion of their own vital issues during the course of a conflict (Cohen, 1994, p. 161). What this thesis defines as American and South Korean vital interests will be discussed in Chapters 5, 7 and 8

1.2 Why Study the DPRK?

The DPRK is a sovereign state in East Asia, on the northern part of the Korean Peninsula. The country shares a border with China to the north and north-west and a short border with Russia to the north-east. The Korean Demilitarized Zone (DMZ) marks the boundary between the DPRK and the ROK. The legitimacy of this border is not accepted by either side, as both states claim to be the legitimate government of the entire peninsula (CNN, 2013). The DPRK has a troubled relationship with several other states, but especially with its neighbor on the Korean peninsula and the United States.

The focus of this thesis is on DPRK's relationship with the United States and the ROK. This thesis could have focused on other states instead like China and Russia because these two countries both share a border with the DPRK. China and the USSR were both participants in the Korean War and have deep ties and relations to the DPRK. Many analyses emphasize the importance of the DPRK-China relation in terms of the United States because it is argued that the DPRK serves as a buffer between China and the United States. The thesis could also have focused on Japan along with the United States and the ROK because the DPRK has on several occasions threatened to "consume Tokyo in nuclear flames" (RT, 2013). This analysis is narrowed to the DPRK, the United States and the ROK because the DPRK do not direct nuclear threats towards either China or Russia. This thesis looks at DPRK's deterrence credibility and its focus is therefore on states that the DPRK are trying to deter with its nuclear weapons. If a third country (Japan) were to be introduced in this thesis then it would not have been possible to do an in-depth focus on the situation between the DPRK and the United States and the ROK because a substantial amount of other background information on the relation between the DPRK and Japan would have had to be included. This would have taken the focus and space away from the analysis that has been conducted in this thesis. The United States has nuclear weapons and is one of the nuclear superpowers. It is therefore interesting to look at the relationship between such a powerful nuclear state and the DPRK

that has a much newer and vulnerable nuclear weapons program. The ROK shares a border and an intense history with the DPRK, the ROK unlike the United States and the DPRK do not have nuclear weapons. Studying how a big nuclear power and a neighbor with no nuclear power both react to DPRK's nuclear threats will indicate DPRK's deterrence credibility and that is why these two countries are at the focus of this study.

There is a lot of secrecy surrounding the DPRK as a state as well as its nuclear weapons program, but it is known to have an active nuclear weapons program. The country first admitted on 10 February 2005 to having developed nuclear weapons and that its intention was to strengthen its nuclear deterrence capability.

We had already taken the resolute action of pulling out of the NPT and have manufactured nukes for self-defense to cope with the Bush administration's evermore undisguised policy to isolate and stifle the DPRK. Its nuclear weapons will remain nuclear deterrent for self-defense under any circumstances. The present reality proves that only powerful strength can protect justice and truth (KCNA, 2005, p. 2).⁵

The DPRK have tested nuclear explosive devices on three occasions, in 2006, 2009 and 2013 (NTI, 2013a). DPRK's nuclear ambitions are undeniable, and this on top of its troubled relationships with neighboring states and other NWS makes the country a very interesting case to study, especially in relations to deterrence and interaction with other states. Despite the fact that nuclear weapons are perceived as weapons of mass destruction, the situation in the DPRK remains understudied. The academic literature on the topic is fragmented and limited, and some of the public information is both contradictory and unsubstantiated.

1.3 Outline of the Thesis

This thesis is comprised of 9 chapters with this introduction constituting the first. *Chapter 2* gives an outline of the events leading up to the establishment of the North Korean nuclear weapons program.

Chapter 3 concerns the theoretical framework and is divided into several parts. 3.1 will present political realism which is the basis for classical deterrence theory. Section 3.2 will

⁵ The Korean Central News Agency (KCNA) is the state news agency of the Democratic People's Republic of Korea. The KCNA represents the views of the North Korean government. The news are written in English and meant for people outside of the DPRK.

briefly discuss the theories related to the structures that make an international system. In Section 3.3 is classical deterrence theory introduced, and Section 3.4 includes reflections for successful deterrence. The chapter concludes with Section 3.5 which introduces and explains the topic of extended deterrence.

Chapter 4 includes methodological reflections concerning the research process and research design of this thesis. The important topics of validity and reliability, theory selection and justification for the case study research design are discussed as well as semi-structured elite interviews that were conducted.

Chapter 5 introduces the three analysis chapters and explains the operationalization of the main concepts in this thesis. The chapter also looks into why the DPRK has acquired nuclear weapons.

Chapter 6 attempts to capture whether DPRK's nuclear threats towards the United States and the ROK are credible by looking at DPRK's abilities to use nuclear weapons from a technical standpoint.

Chapter 7 and Chapter 8 focus on the political relationships between the states studied in this thesis. Chapter 7 looks into which degree the United States is exposed to DPRK's nuclear deterrence by focusing on North Korean rhetoric and nuclear threats directed at the United States. The chapter also introduces American reactions to North Korean nuclear incidents and identifies which American vital interest that are exposed and threatened by North Korean nuclear weapons. The chapters do this by using secondary and primary literature through secondary literature review and elite interviews. Chapter 8 has the same structure as Chapter 7 the focus is on the Republic of Korea instead of the United States

Chapter 9 sums up the findings in Chapters 6, 7 and 8 and ties the answers to research question *a* and *b* and conclude with the findings in this study and the answers to the main research question.

2 Empirical Background

The purpose of this chapter is to give an overview of the main features of DPRK's nuclear weapons program and its history up until today. Before discussing DPRK's deterrence effect, it is important to have an understanding of the context in which it operates, as well as certain basic information about the country and its nuclear program itself. This chapter will have great relevance for later analysis answering the research question.

Section 2.1 briefly discusses the division of the Korean peninsula, the establishment of the Democratic People's Republic of Korea and the Korean War. This part of the chapter will show why there is a big difference between the two Koreas today and why the tension on the peninsula started. The chapter then describes, respectively, Kim Il-sung's, Kim Jong-Il's and Kim Jong-un's transition into power in Section 2.2. Section 2.3 looks at the *Juche* and *Songun*, North Korean political ideologies. A country's political state and ideology has, according to deterrence theories which will be presented in Chapter 3, great relevance for the deterrence effect of the country. This is why these two sections are included in this chapter. Section 2.4 takes a closer look at DPRK's nuclear program and its nuclear capabilities. In order for deterrence to work, the nuclear threats posed must be credible. This section will show what sorts of nuclear weapons the DPRK have and how far they can be launched. The last section, Section 2.5, deals with the tension on the Korean peninsula and DPRK's relationship to the United States. This Section will tie together the previous sections and show why the DPRK pursued nuclear weapons and why the country believes it is important to deter both the ROK and the United States.

2.1 The Division of Korea

Japan had colonized Korea since 1910 when the Japanese empire fell in 1945, after the American bombing of Hiroshima and Nagasaki. The Japanese troops in the South of Korea surrendered to the Americans while the USSR had already conquered the North of Korea (Hickey, 2011, p. 1). An agreement between the two super powers resulted in a division of Korea, and the border between the two militarized zones were drawn along the 38th parallel⁶.

⁶ The border between North and South Korea is sometimes referred to as the 38th parallel. The 38th parallel is a circle of latitude 38 degrees north of the equatorial plane; this means that the line divides the Korean peninsula coarsely in half. After the surrender of Japan in August 1945, the 38th parallel was established as the boundary

During the course of the summer and fall of 1948, two new states were established: The Republic of Korea (the ROK) in the South and the Democratic People's Republic of Korea (the DPRK) in the North. Both of their constitutions stated that their national territory constituted the whole of the Korean peninsula. The Soviets backed the Stalinist regime under Kim Il-sung which created the Korean People's Army (KPA) (Hickey, 2011, p. 1). Kim Il-sung had in the beginning of the 1950s gotten permission from Stalin to unite the two Koreas with power if necessary (Nahm, 1993, p. 246).

On 25 June 1950, after several years of clashes between the two states along the 38th parallel, North Koreans soldiers and tanks crossed the border and entered the ROK. The fighting that followed lasted until 1953. The North Koreans were receiving support from the USSR in terms of armaments and military advisors of high rank (Nahm, 1993, p. 246). The South Koreans on the other hand did at this time receive more than \$ 100 million annually from the United States (South Korea's national budget in 1951 was 120 million dollars), mostly in the form of grants (Cumings, 1997, p. 255). South Korean authorities did not capitulate after the invasion of Seoul, the capital of the ROK. This made Kim Il-sung decide that his forces would continue South, and in July more than two thirds of the South Korean territory was under North Korean control (Nahm, 1993, p. 249). The Americans were caught off guard by the invasion and got the United Nations Security Council (UNSC) to invoke the United Nations (UN) Charter and brand the North Koreans as aggressors as they invaded further South. This resulted in member states of the UN being called upon for military assistance (Hickey, 2011, p. 1). The American troops were the first to arrive and the British government also responded to protect the ROK. The USSR sent troops to the Chinese-Korean border to protect China. Soviet aircrafts were involved in battles against UN forces (Nahm, 1993, p. 250). Military intervention again changed the war in favor of the DPRK as China poured "volunteer" soldiers across the border to back up the North Korean regime. Seoul was again occupied by the communist forces in January 1951, but was liberated by UN forces in March (ibid).

by the United States. This parallel divides the Korean peninsula roughly in the middle. The actual border between the two countries today slants across the circle of latitude, but the border is often referred to as the 38th parallel (The Economist, 2013).

Ceasefire talks began in mid-1951 and lasted for two years. In July 1953 the Demilitarized Zone (DMZ) was established and both sides withdrew from fighting (Hickey, 2011, p. 1). The exact number of casualties during the Korean War will never be known, but it is estimated that 46,000 South Korean soldiers were killed and over 100,000 wounded. The DPRK lost about 215,000 soldiers while 303,000 were wounded and over 101,000 captured or missing. The Chinese are estimated to have lost over 400,000 soldiers, in addition to 486,000 wounded and over 21,000 captured. The Americans lost 40,000 during the war while the British lost 1,078 in battle, 2,674 were left wounded and 1,060 went missing (Hickey, 2011, p. 1).

The DPRK was left in ruins after the war. It has been estimated that 80 percent of the country's production capacity was destroyed during the war (Nahm, 1993, p. 262). In the following years the North Korean's attempted to get the economy back on its feet through targeted multi-annual plans aided by the USSR and other communist states. The economic growth was strong until 1967, and then the USSR reduced its assistance (Nahm, 1993, p. 263). It was made clear during the leadership of Kim Il-sung that the DPRK wanted to stand on its own two feet.

2.2 DPRK's Three Leaders

Ex-guerilla Kim Il-sung was installed by the USSR as head of the Provisional People's Committee in Pyongyang, the capital of the DPRK (IISS, 2011, p. 9). The USSR groomed Kim Il-sung by providing him with various types of assistance and strengthening his power base. With Soviet support Kim Il-sung destroyed the indigenous Communist leaders in the DPRK and became Chairman of the North Korean Provisional People's Committee (later The People's Committee) in 1946 and Vice-chairman of the North Korean Workers Party in 1947 (Nahm, 1993, p. 220). When the state became the Democratic People's Republic of Korea in 1948, Kim Il-sung became prime minister (Nahm, 1993, p. 234). Kim Il-sung began constructing his dynasty in the DPRK in the 1960s and ended up as DPRK's undisputed leader (IISS, 2011, p. 9).

His son Kim Jong-il was groomed as his father's successor for almost three decades. Kim Jong-il was designated as a probable successor in 1974, but was not officially announced as heir to the regime until 1980 (IISS, 2011, p. 9). Kim Jong-il was appointed both as chairman of the National Defense Commission and as supreme commander of the army before his

father passed in 1994. He continued to hold these two positions after his father's passing. He was not appointed Secretary General of the party until 1997. The post as President of the Republic belongs to Kim Il-sung forever (IISS, 2011, pp. 9–10; Nahm, 1993, p. 220).

Kim Jong-un, the son of Kim Jong-il was introduced to the public in September 2011. He seemed destined to succeed his father at the time. The Kim family worked hard to make his succession appear inevitable. Kim Jong-un was made a four star general in 2011 without having any field experience in the army. He was also appointed to two powerful posts in the ruling Worker's Party by his father (McDonald, 2011, p. 1). Kim Jong-il died in December 2011 and Kim Jong-un was officially declared the supreme leader of the DPRK following his funeral. No official comprehensive biography on him has been released and very little is therefore known about him and his road to becoming heir as supreme leader of the DPRK (McDonald, 2011, p. 1).

2.3 Understanding Kim Jong-un's DPRK; Juche and Songun

The DPRK was born a communist state, with a command economy under a Stalinist dictatorship, but in the beginning of the 1950s, the DPRK developed an official state ideology called *Juche* (translates into "independence"). This ideology was first introduced and articulated by Kim Il-sung in December 1955 (IISS 2011, 10). Kim Il-sung spelled out three specific applications of the *Juche* ideology which were vital: (1) political and ideological independence; (2) self-sustenance in the economy; and (3) a viable national defense system (Lerner 2010, 15). *Juche* stresses the principle of complete equality and mutual respect among nations when it comes to international relations. The DPRK has interpreted the ideology in a way which means that succumbing to foreign pressure or tolerating foreign intervention would make it completely impossible for them to maintain domestic and foreign independence (ibid). The impact that *Juche* has had on the North Korean society is clear and indisputable, but the impact it has had on shaping DPRK's foreign policy is often overlooked (Lerner 2010, 17). Kim Il-sung forbade any other ideology from being taught or even discussed in the DPRK. The DPRK represents the last frontier of isolation in the world today. Due to the fact that the country's policies and behavior can be explained by *Juche*, having an overview and an understanding of the ideology is essential to understanding the North Korean state, its politics and its people (G. Lee 2003, 112). *Juche* is today not the only important

ideology for the North Korean regime. It has been supplemented and in some sense replaced by *Songun*.

Songun is a North Korean policy which means “military first”. This policy prioritizes the KPA when it comes to affairs dealing with state and the allocation of resources. *Songun* guides the political and military life in the DPRK. This means that the KPA is given high status within the DPRK, the army is given a primary position in both society and government (DeRochie, 2011). The “military first” principal guides and decides a lot of DPRK’s relations and interactions with other states as well as internal affairs. *Songun* is also used as a framework for the government’s work and a lot of economic resources are granted to the KPA because of this policy. *Songun* also represents an ideological concept which resulted in a shift in policies in 1994, (DeRochie, 2011).

2.4 DPRK’s Nuclear Weapons Program and Nuclear Capabilities

There is a lot of secrecy surrounding DPRK’s nuclear program. The state first admitted on 10 February 2005 to having developed nuclear weapons, and the final confirmation came on 9 October 2006 when it conducted its first nuclear test. The DPRK has later conducted two more tests, in 2009 and 2013. Even though its nuclear program is surrounded by secrecy, it is known that the DPRK is capable both of enriching uranium and producing weapons-grade plutonium. The DPRK has deployed short-range and medium-range ballistic missiles along with successfully launching a long-range rocket in the year 2012 (NTI, 2013a).

DPRK’s interest in a nuclear weapons program is stated to reach back to the end of World War II. The state received, with the help of the USSR, its first nuclear reactor in 1962 (Lee & Suh, 1998, p. 124). Kim Il-sung supposedly asked Mao Zedong after China’s first explosion of an atomic bomb in 1964 to share the technology, but Mao supposedly rejected to do so (Becker, 2005, p. 179). A lot of what is known about DPRK’s nuclear program is based on insecure intelligence sources and information from defectors who might have had a personal interest in portraying the situation as more severe and dramatic than it really is (Kippe, 2003, p. 7). It is important to keep this in mind when discussing DPRK’s nuclear program.

As stated in the introduction, the DPRK withdrew from the NPT in 2003. The DPRK signed the NPT in 1985, but it took seven years for them to complete the obligatory comprehensive

safeguards agreement with the IAEA enabling the Agency to verify the country's nuclear program. The Safeguard agreement went into effect in April 1992 (ElBaradei, 2011, pp. 37–47). In May of the same year, the DPRK submitted its initial declaration of nuclear materials to the IAEA. The Agency's task was then to verify DPRK's nuclear facilities and materials which were all intended for peaceful purposes according to the North Korean declaration (ibid). The IAEA requested in 1993 special inspections to two of the sites it believed stored nuclear waste. The request was from the IAEA's side based on strong evidence that the DPRK had cheated on its commitment to the NPT, and the request was refused by the North Koreans. In March of the same year, the DPRK announced its intentions to withdraw from the NPT⁷, but it suspended its decision to withdraw after talks with the United States. The DPRK also agreed to the full and impartial application of IAEA safeguards. The United States granted assurance to the North Koreans that they would not threaten with or use force, including nuclear weapons, as well as keep out of DPRK's internal affairs. The DPRK gave a second notice of withdrawal from the NPT on 10 January 2003 following the United States allegations that it had started a uranium enrichment program. The withdrawal became effective 10 April 2003 making the DPRK the first state ever to withdraw from the treaty (ElBaradei, 2011, pp. 37–47).

By the year 2010 had the DPRK not only openly threatened to use its nuclear weapons for the first time, it also made its first real declaratory statement of its own nuclear posture in response to the American nuclear posture review:

The mission of the nuclear armed forces of the DPRK is to deter and repulse aggression and attack on the country and the nation till the nuclear weapons are eliminated from the peninsula and the rest of the world. The DPRK has invariably maintained the policy not to use nuclear weapons against non-nuclear states or threaten them with nukes as long as they do not join nuclear weapons states in invading or attacking it (Lewis, 2010).

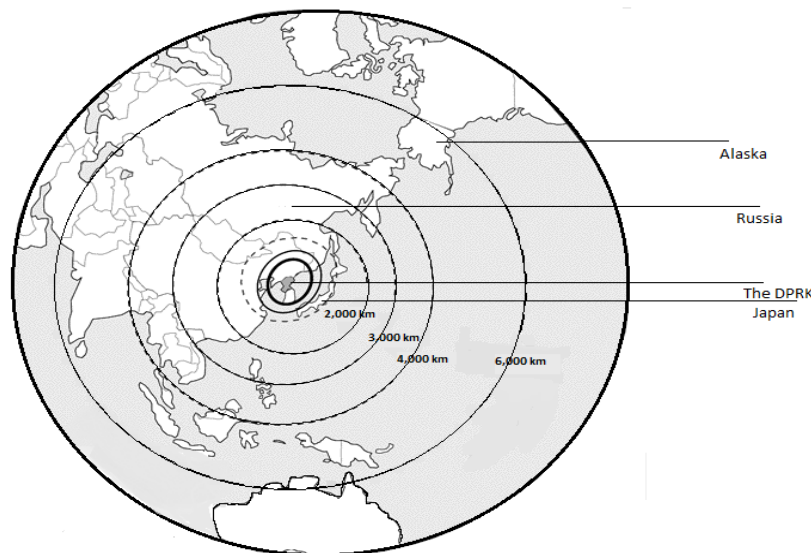
Peter Hayes and Scott Bruce (2011, p. 3) has written that these statements should be taken seriously, but one should not necessarily assume that the DPRK has the operational military capacity to back up these claims. It is believed that the DPRK as of 2014 possesses enough plutonium to make 4-10 nuclear warheads.

⁷ Article X of the NPT allows withdrawal for supreme national security considerations.

In the DPRK ballistic missiles are the most appropriate delivery vehicle for nuclear weapons. The country has made significant progress in the development of several types of ballistic missiles since 2003. If the DPRK has an operational nuclear weapons program it is most likely that it is in the form of nuclear warheads on intermediate missiles called *Nodong* (Høibråten et al., 2013, p. 48). The DPRK has not been able to test a complete intercontinental ballistic missile (ICBM), but even though testing is slow it is developing new ballistic missiles (ibid)

Figure 2.1 DPRK's missile range; maximum estimated/calculated⁸

Nodong-1: 900-1,500 km	Taepodong-2 (2-stage): 4,000-15,000 km
Taepodong-1: 1,500 - 2,500 km	Musudan/BM-25/SS-N-6 variant: Until 3,200 km



(Arms Control Association, 2012; Federation of American Scientists, 2014; Høibråten et al., 2013, pp. 48–54)

The fact that analysts do not believe that the DPRK has created a nuclear device small enough to be mounted on a missile, shows that Pyongyang's ability to carry out a nuclear strike on the United States is less than certain (BBC, 2013b, p. 2) (see figure 2.1). The International Institute for Strategic Studies has indications that the DPRK has some sort of device that can hit United States shores, but the institute states that a “functioning nuclear-tipped intercontinental ballistic missile is still at least several years away” (ibid). As one can see

⁸ Out of the four missiles presented is the *Nodong* missile the only North Korean missile that is known to be operational (Høibråten, Halvor Kippe, Breivik, Heireng, & Enger, 2013, pp. 48–55). The different ballistic missiles and their capacity will be further discussed in chapter 6.

from the figure above and the text, the DPRK will most likely not be able to strike the United States, but it could target United States interests in the region. The United States military has thousands of troops in the ROK, Japan, Guam and the Philippines (ibid). It is also important to note that the United States is obliged to defend Japan if Japan gets attacked according to the terms of the Security Treaty between the United States and Japan (Security Treaty Between the United States and Japan, 1951). The DPRK are operationally capable of using nuclear weapons, but their options for nuclear strikes are severely constrained due to underdevelopment of their missiles and weapons (Hayes & Bruce, 2011).

2.5 American Nuclear Weapons in the ROK

The United States suffered not only loss of troops during the Korean War; the war also resulted in a serious financial deficit for the United States. The United States had to reduce its forces in Korea in order to reduce its deficit; the solution was instead to introduce nuclear weapons into the ROK. The United States began deploying nuclear weapons in the ROK as early as 1958⁹, but word of this first started to spread in the mid-1970s. The United States Secretary of Defense at the time, James Schlesinger, affirmed that they had deployed nuclear weapons to the ROK for the first time in February 1975. Schlesinger did also on two different occasions, in April and June 1975, issue public threats to the DPRK. He stated that the United States would retaliate with nuclear weapons if the DPRK attacked the ROK, and that the United States would retain its nuclear weapons in the ROK (Jae-Bong, 2009, pp. 1–2).

The DPRK started working on a massive ‘fortification of the entire land’ in the 1960s to protect their territory. Kim Il-sung declared in 1963 that it was necessary to dig underground tunnels due to the fact that by this fortification the DPRK could defeat states with nuclear weapons even though the DPRK did not possess them itself (Jae-Bong, 2009, p. 11). The North Koreans did also conduct a forward deployment towards the DMZ. This was because the DPRK had a plan that if the DMZ came under nuclear attack it would also hit the United States and South Koreans forces deployed in the area around the DMZ on both sides of the border. The DPRK believed that this fact would deter its enemies from reckless use of nuclear weapons (Jae-Bong, 2009, p. 11). The American financial deficit was not the only reason for

⁹ The Washington Post reported in October 2006 that “In 1957, the United States placed nuclear-tipped Matador missiles in South Korea, to be followed in later years...by nuclear artillery...” January at the latest has been used by the author cited because it is not clear whether the first introduction of nuclear weapons occurred in late 1957 or early 1958 (Jae-Bong, 2009, pp. 10–11).

deploying nuclear weapons to the ROK. The following factors also figured into the decision to do so:

1. The Americans were not willing to completely disregard a possible invasion of the ROK by the North Koreans.
2. The ROK was the only place that the Americans could secretly deploy their soon to be scrapped nuclear weapons while also effectively targeting the USSR¹⁰.
3. The USSR had surpassed the United States in the development of ICBMs, which is the delivery system that can carry nuclear weapons across oceans, and the Americans could not afford to deploy nuclear weapons to protect the South Koreans because they did not have enough missiles to spare (Jae-Bong, 2009, p. 5).

It is widely believed that the American nuclear weapons in the ROK were withdrawn by the end of 1991. This is said to be because the United State and the USSR agreed on the Strategic Arms Reduction Treaty (START)¹¹ on 31 July 1991, but the interesting fact is that the treaty only covered strategic nuclear weapons, while all the American nuclear weapons in the ROK were tactical ones. This shows the ambiguity and secrecy surrounding nuclear weapons arsenals. Another argument has been that the Soviet threat changed that year, when the USSR collapsed in December 1991. Even though 2,000 nuclear weapons were withdrawn, the door was supposedly left open to restore or redeploy naval nuclear weapons at ‘an appropriate time’. The storage facilities for the nuclear weapons have also been preserved. The United States has furthermore pledged that the ROK is under its nuclear umbrella¹². The DPRK on the other hand has never fallen under either the Soviet or the Chinese nuclear umbrella (Jae-Bong, 2009, p. 12).

¹⁰ The nuclear weapons that the United States had planned to deploy to South Korea were 280 mm atomic cannons and 762 mm Honest John atomic rockets. These two types had been removed from other use due to their weight and size (Jae-Bong, 2009, p. 5)

¹¹ START outlined the reduction of the United States and Soviet nuclear arsenals by one third of current levels (Jae-Bong, 2009, p. 12).

¹² The term “nuclear umbrella” refers to a guarantee by a nuclear weapons state, in this instance the United States, to defend a non-nuclear allied state, in this case South Korea, with nuclear weapons (Jae-Bong, 2009, p. 12).

3 Theories

This chapter will give a short introduction to the theories surrounding nuclear deterrence. It will explain which terms that have laid the foundation for effective deterrence. By setting up standards for what must be present for effective deterrence, the theories also say something about when they will fail. It also shows how the basic features of the international system show how states interact with each other. It will be important to look at how states relate to threats posed by other states, and how deterrence can be a solution to such a threat. Deterrence as a strategy implies that the implications the theory lays to ground are present. The chapter will look at how deterrence strategy works and what the implications of this strategy are, and its ability to succeed if this is not the case? This central question is carried on out through the discussion on nuclear deterrence in relation to the DPRK that is presented later.

3.1 Political Realism

Classical deterrence theory is rooted in the intellectual tradition that is known as power politics, political realism or realpolitik which are all known to be a part of realism (Zagare & Kilgour, 2000, p. 7). Jon Elster (1986, p. 4) states that there are three basic concepts of rationality, beliefs, desires and actions. A person has beliefs about the casual structures of a situation he or she is in. He or she also has beliefs about what course of action that will lead to the different outcomes. The desires are subjective rankings of the alternative courses of action he or she believes are possible. To act rationally, then, simply means to choose the most favorable course of action according to one's desires (ibid). Rational choice theory tells a person how to achieve a wanted outcome as best as possible. It does not tell a person whether or not desires should be material, spiritual, symbolic, altruistic or egoistic. Rational desires must however minimally comply with two formal criteria; transitivity and time-consistency (ibid).

Posits egoistic, rational, and undifferentiated units are driven by their nature to maximize power (Mearsheimer, 1990, p. 18), or by their environment to maximize security (Waltz, 1979), but since rationality is defined subjectively makes it difficult to predict how another state will perform or reject to something. According to a realist is the international system lacking a supreme authority. Each state must provide for its own security and most realists

believe that a balance of power is the most efficient mean to maintain world order. Mearsheimer (1990, p. 18) writes that, "Power inequalities invite war by increasing the potential for successful aggression; hence war is minimized when inequalities are least". Classical deterrence theory builds upon this theoretical base and is extended when it considers the consequences of war in a nuclear world and age (Zagare & Kilgour, 2000, p. 8).

Rationality and rational conduct is an efficient conduct in the sense that the actors most effectively pursue their desires. The minimalist view of rationality is that people choose what they want the most, supposing only that their preferences are consistent. This is a view that is by some perceived as extremely trivial and scarcely worth of such a grandiose description as 'rational choice'. There are however two aspects to rationality in this sense. First, there is the question of analyzing an individual's preferences and ensuring his or hers consistency, this is not always as easy as it may seem. Secondly there is the question of 'rational belief'; an individual must have some rational belief concerning the possible consequences of any act. Decisions are typically taken under uncertain environments, this involves being aware of a number of possibilities (Nicholson, 1992, p. 48). "Decision makers, even of the highest and most distinguished sort, are human beings, and are subject to the same vagaries of the mind as the rest of us" (Nicholson, 1992, p. 127).

A single demand of you comrades...Provide us with atomic weapons in the shortest possible time. You know that Hiroshima has shaken the whole world. The balance has been destroyed. Provide the bomb, it will remove a great danger from us (Thayer, 1995, p. 487).

This was Josef Stalin reported request to Igor Kurchatov and B.L. Yannikov after The United States bombing of Hiroshima and Nagasaki in August 1945. According to Sagan (1996, p. 58) was the Soviet response a perfectly predictable response from a realist perspective. It can also be argued that the decision of other states to develop nuclear weapons can be explained within the same framework. From a realist perspective have Great Britain and France developed nuclear weapons because of a growing Soviet military threat. When the credibility of the United States nuclear guarantee to NATO allies was questioned the USSR was able to threaten retaliation against the United States. Some states started to question whether or not the United States would actually use nuclear weapons to protect them if it could jeopardize the American situation. China developed the bomb because the country felt vulnerable by the United States at the end of the Korean War and during the Taiwan Straits crises. After China

had successfully developed a nuclear bomb, India was bound to follow. They had fought a war with China in 1962. After the India's successful explosion, the Pakistani nuclear program moved forward according to a realist view because they were facing a recently hostile neighbor who was superior when it came to conventional military power as well as nuclear power (Sagan, 1996, p. 59). The DPRK developed nuclear weapons in order to deter and repel aggression and attacks against their country; they felt threatened by the presence of American nuclear weapons in the ROK (Lewis, 2010). From a realist perspective these states developed nuclear weapons because they felt threatened by neighboring states or enemies with nuclear capabilities.

3.2 The Structure of the International System

Kenneth N. Waltz attempts in his doctoral thesis "Man, the State, and War" to give a more precise explanation of state's behavior and this thesis developed into a strand of realism known as structural realism or neorealism. Waltz's focus was on the structure of the international system (P. Huth, Gelpi, & Bennett, 1993, p. 611).

National politics is the realm of authority, of administration, and of law. International politics is the realm of power, of struggle, and of accommodation and every state will plot out a course by force or not, that they believe will best serve their interests (Waltz, 1979, p. 113). A national system is not one of self-help, but the international system is. A big difference between national and international politics is not dependent on the use of force, but on the different mode of organization for doing something about it. The threat of violence and the recurrent use of force do also distinguish international from national politics. The use of force, or the constant fear of its use, is not sufficient grounds for distinguishing international from domestic affairs (Waltz, 1979, pp. 102–104). The structure of international politics limits the cooperation among states because a state worries about a division of possible gains that may favor other more than itself. A state will also worry unless it becomes dependent on other states through cooperative activities and an exchange of goods and services (Waltz, 1979, p. 106).

Kenneth N. Waltz is a realist and represents one strand of realism, today there are several such strands, but what they all have in common are some assumptions and beliefs about states, the international system and the interaction between the two.

- 1) The international system is anarchic. This means that there is no overarching government, and states have to ultimately fend for themselves.
- 2) Sovereign states are the principle actors in world politics.
- 3) States are unitary rational actors and their own national interests guide them.
- 4) The ultimate national interest of every state is state survival.
- 5) Power is what determines a state's capability and is also the currency of the international system (power is commonly known as military power, which is determined, by economic strength and demographics) (Ganss, 2012, p. 15).

3.2.1 An Anarchic International System

Realism believes that the principal actors in the international system are sovereign states. To be a sovereign state means that there is no higher authority than the states' that dictate how the states choose to act within its own borders. This principal was established by the peace of Westphalia in 1648. No state is allowed to interfere in another states' domestic affairs (Morgenthau, 1973, pp. 306–307). Due to the fact that there is no higher authority, the international system is anarchic. This means that there is no international authority that can force states to act in a certain way or punish them if they do not act as wanted. Because no states know the exact intentions of another state and since there are no higher authority it means that states will always live in uncertainty in relations to each other.

3.2.2 Unitary Rational Actors

The ultimate national interest of every state is survival. Each state must therefore secure this. This also means that all foreign policy decisions have to be formed after this basic idea. The actor knows which goal he or she is trying to achieve. He or she also knows the alternatives to reach the goal. He or she will calculate the expected utility of all the alternatives and choose the one alternative that maximizes the utility (Ganss, 2012, p. 16). This is a classic example of game theory and the prisoner's dilemma. A nuclear arms offer an important example of the dilemma because if two states are involved in an arms race both of them are better off when

they cooperate and avoid building up nuclear weapons. Yet the dominant strategy for each is to arm itself heavily (Kreps, Milgrom, Roberts, & Wilson, 1982).

3.2.3 Power

Kenneth Waltz wrote “international politics is the realm of power, of struggle, and of accommodation”. This has resulted in an unstable world according to Waltz and the stability of the international world is depended on the balance of power because states will abstain from directly military confrontations with states that have superior strength and power (Waltz 2008, 79). The only way a sovereign state can survive in an anarchic world is to maximize its power. In neorealism, power is a means to an end. It is also a source to security and insecurity. Too much power can result in other states increasing their arms, which can lead to an arms race. Too little power on the other hand can invite more powerful states to attack (Waltz 2008, 79).

There are two dominant realist approaches in relation to power and its role in the interaction between states. The first tradition is called the billiard ball metaphor. According to this theory is the international system solely composed of states. This means that there is no external environment. States in this system are interested in maximizing their power, and power is viewed as a relative concept. When one state increases its power capabilities it will unavoidably decrease the capability of other states. In this image is the world zero-sum. States only act to structure nonpolitical behavior if this would enhance their relative power capability, this means that economic policy is not an end in itself; it is a device for enhancing a state's power. This approach dominated international relations and realism through the 1960s, when security concerns and Soviet-American and Cold War relations were at the center of attention (Krasner, 1982, pp. 497–498). The second realist tradition represents a more complicated universe than the billiard ball metaphor. This tradition is interested in the impact of the distribution of state power on some external environment. The interaction of states can structure the pattern of world trade or the rules governing the exploitation of deep seabed nodules. Conflict is not ignored in this tradition, but the world is not zero-sum like the first tradition. In contrast to the first tradition is relative power capabilities not the only state objective; economic wealth, for instance, can be an end in itself (ibid).

3.3 Deterrence Theory

Deterrence theory is not an invention of the nuclear age but it is a rational theory that was developed during the Cold War arms race. Its focus was the prevention of a nuclear conflict between the USSR and the United States. There is no single and authoritative theory, so in order to outline classical deterrence theory one has to piece together a variety of sources (Zagare & Kilgour, 2000, p. 7). Deterrence is broadly defined as “...the threat of force intended to convince a potential aggressor not to undertake a particular action because the cost will be unacceptable or the probability of success extremely low” (Gerson, 2009, p. 34). The Political Science encyclopedia (2007, p. 21) has a very similar definition to Gerson. According to the encyclopedia is the meaning behind deterrence to get “...somebody to refrain from something by threatening them with negative responses. This is especially used by states to endeavor to hold other states from an unwanted action by proposing military threats”. This definition of deterrence is wide, but for deterrence to be effective the opposition has to be convinced that the other part has the ability and will to respond to aggressive actions, in other words, deterrence has to be believable. This directly links to research question *a* and *b* and will be a big part of the analysis. This definition also introduces the aspect of military threats. Potential attackers need to be convinced that their provocation will be met with retaliation. Thus A's deterrence capability is a result of B's estimation of A's nuclear weapons and intention. If the capability is there, but the intention or willingness to repay is equal to 0, then the deterrent effect is also equal to 0 (Holsti, 1995, p. 221). It is important to keep in mind that deterrence is not achieved through the ability to defend, but through the ability to punish and attack. Pure deterrent forces provide no defense (Sagan & Waltz, 1995, p. 3).

Huth, Gelpi and Bennett (1993, p. 612) writes that “in order for deterrence to succeed, the challenger's expected utility for accepting the status quo must be greater than its expected utility for attempting to overturn the status quo through the use of force”. As shown by Huth et.al above deterrence contains both ability and credibility. The deterring party has to have the ability to impose high cost on their opponent, and the opining party has to perceive that the deterring party is willing to do what they say they will (ibid). Credibility again is a result of two central variables: the balance of military capability between challenger and defender as well as challenger and defender's level of resolve. The balance of the capabilities influences the challenger's probability of victory along with the value it places on a victory or defeat in a

war-like situation. If the balance of military capability shifts towards the challenger then it will be more likely that they will be able to triumph in an armed conflict (ibid). Nuclear weapons on the other hand can change all of this because they “...make military miscalculation difficult and politically pertinent predictions easy” (Sagan & Waltz, 1995, p. 9).

3.4 Conditions for Successful Deterrence

Deterrence is a very important factor when discussing the importance of nuclear weapons in a conflict, but by setting up standards for what must be present for effective deterrence, the theory also says when it will fail because deterrence do not work automatically. The obvious requirement for effective nuclear deterrence is the possession of sufficient capabilities to carry out the threat posed (Holsti, 1977, p. 315). According to Tom Sauer (1998, p. 3) nuclear deterrence have to fulfill three basic conditions. These are (1) The opponent must be susceptible to deterrence, (2) the opponent must have vital interest and (3) the declared nuclear threat must be believable.

Holsti (1995, p. 220) elaborates Sauer’s three conditions and introduces six instead of three conditions which are more thorough:

- 1) *Decisions by both the defender and the challenger will be based on rational calculations of probable costs and gains, accurate evaluations of the situation, and careful assessments of relative capabilities.*
- 2) *A high level of threat, such as that posed by nuclear weapons inhibits rather than provokes aggressive behavior.*
- 3) *The value hierarchies of both the defender and the challenger are similar, at least to the point that each places to the avoidance of large scale violence at or near the top.*
- 4) *Both sides have similar frames of reference so that signals of resolve and reassurance are perceived and interpreted accurately.*
- 5) *Decisions are not sensitive to such extraneous considerations as domestic political pressure.*

- 6) *Both sides maintain tight centralized control over decisions that might involve or provoke the use of strategic weapons.*

As one can see, are these quite rigorous conditions for effective deterrence. It requires rational actors who have certain interests in common. Rationality alone is not enough. The parties must also have a common preference to avoid mutual nuclear exchange. The last two points also assumes that the actors are unitary rational actors. The next section elaborates on Sauer and Holsti's conditions for successful deterrence. Holsti's six conditions are divided into Sauer's three categories due to the fact that some of them coincide.

3.4.1 State Decision Makers Must be Deterred

There are three different categories of individuals that are less likely to be deterred than others; these are, (1) irrational individuals, (2) fundamentalists and (3) risk-takers. States are the only actors, but there are individuals within the various states that make decisions and the section that follows refer to individuals instead of states even though states are the only actors in the international arena.

A person has to be aware of the consequences of one's behavior to be deterred which means to assess the costs and benefits of one's action. According to Sauer (1998, p. 4) do rational actors show this characteristic. Supporters of nuclear deterrence believe that a rational opponent will figure out the negative consequences of a nuclear counterattack because such an actor will realize that a counterattack cancels out the possible advantages of any action against the vital interests of those actors that possess nuclear weapons. An irrational actor on the other hand will not automatically follow this logic; an example of an irrational actor is one under the influence of alcohol or drugs and/or medication. If an actor is under excessive use then he/she will in most cases not be able to act rationally. The likely hood of such a person becoming head of state is higher than one first would believe (ibid).

Fundamentalists are more willing than others to risk others as well as their own lives for ideological or religious interests (Sauer, 1998, p. 4). Gregory Schulte, the NATO Nuclear Planning Director at the time agrees with Sauer. He stated, "It may be difficult to assess the personality and intentions of the leaders of proliferating states. We might even consider these leaders to be 'irrational', at least by our standards" (Gregory Schulte, 1995, p. 18). These leaders that Sauer classify as fundamentalists value life differently than by the 'western

standard', and this has massive consequences when it comes to nuclear deterrence and proliferation. Deterrence which is based on rational actors will not be able to stop a 'nuclear kamikaze' (Sauer, 1998, p. 5).

The third categories of actors are risk-takers, and this is the largest category to worry about according to Tom Sauer. A lot of different categories of people can be classified as risk-takers, but not everyone is willing to take massive risks. The risk-takers in this category play at the edge of rationality. To carry out an attack involves to calculating risks and these calculations sometimes becomes miscalculations (Sauer, 1998, p. 5). Supporters of nuclear deterrence theories argue that the possibilities of nuclear miscalculations are minimal, but the possibility of miscalculations can never be excluded. So-called nuclear risk-takers could be individuals, but by small groups. This on the other hand is, according to Sauer, not a valid enough counter argument for his three categories. A small group of people will not necessarily make rational decisions. A group leader with fundamentalist's views will not surround him or herself with people with opposite religious or ideological principles. There is also a likelihood that regimes who have to make decisions on whether or not to react to a deterrence threat are autocratic regimes where no opposition is allowed (Sauer, 1998, p. 6). Organizations as well as humans are disposed to misjudge a situation and make a completely wrong decision. The chances of decisions being taken in non-rational environments increase due to the structure of organizations. Even in a democratic regime and especially in an unordinary crisis situation are leaders and their staff no longer able to make joint rational decisions (ibid). Irving Janis (Hart, 1991, p. 256) defines it as "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity". Authors like Kenneth Waltz (1979) argue that the nature of a political regime or the characteristics of an individual not affect nuclear deterrence when a credible nuclear arsenal deters an actor because a vast majority of individuals and groups making decisions are rational. The risk of nuclear deterrence failing due to miscalculations can never be excluded and the possibility of nuclear deterrence failing has always existed and still does (Sauer, 1998, p. 8).

3.4.2 Vital Interest must be Threatened

According to Sauer (1998, pp. 8–9) the vital interest of a state have to be threatened before one can speak of nuclear deterrence. What one defines a vital interest is a complicated issue;

some issues may be vital, while others may be less vital. It is also known that states have altered their opinion of their own vital issues during the course of a conflict (Cohen, 1994, p. 161). Advocates of nuclear deterrence perceive this point as contributing to the stabilizing effect of nuclear weapons because no one will be willing to take the risk. Critics of deterrence on the other hand states that not everybody will look at vital interest in that sense (Sauer, 1998, pp. 8–9).

3.4.3 A Threat has to be Credible

A threat is a liable declaration that signals an intention to hurt somebody unless that somebody acts in the way that the threatened wants to. The hurt inflicted on someone can be physically, economically, or otherwise and can also be inflicted directly or indirectly on the target (Hovi, 1998, p. 12). The first means to literally hurt the target itself. The second means to hurt a third party that the target cares about. A warning on the other hand is a statement which points out to somebody that taking a particular course or doing something special can lead to unfortunate consequences, and these consequences are not under the control of the person making the statement (Hovi, 1998, p. 12). Both a threat and a warning both claim that taking a particular course of action will more than likely cause harm to the person considering that action. The difference between the two is that harm will be inflicted by the one threatening when it comes to a threat and when it comes to a warning it is inflicted by nature or a third party (Hovi, 1998, p. 12). A threat can be considered effective if the one targeted changes its behavior in accordance with the threatener's wishes.

Five conditions have to be fulfilled for a threat to be considered effective. The first condition is **relevance**; a threat must have an impact on the outcome. This requires that the target of the threat have freedom of action. He/she is able to adjust his/hers policy in the direction that the threatener wants. The target must also have an incentive to act contrary to the threatener's desires, if not, then the target would behave in accordance with these desires in any case, and there would be no need to threaten him/her (Hovi, 1998, pp. 13–16). The second condition is **severity**. A threat must be so severe that it makes a difference to the target. The target must prefer to submit with the threatener's demands, instead of defying these demands and have the threat effectuated. Whether a threat is sufficiently severe enough depends on the magnitude of the threatened punishment as well as on the character of the demands made by the threatener.

Credibility is the third condition and a threat has to be credible to the extent that the target believes that it will be carried out if the target does not comply with the threatener (ibid). Freedman (1981, p. 96) once stated that credibility is “the magic” ingredient of deterrence. Kilgour and Zagare has stated (1991, p. 305) that “never has this statement been more true than in the nuclear age when the capability of each superpower to inflict unacceptable damage on the other is evident”. In the strategic culture the idea of credibility is either directly or indirectly associated with rational or self-interested behavior. A credible threat is a threat that is believed. Threats can be believed when they are rational to carry out. In other words, only rational threats are credible (Kilgour & Zagare, 1991, p. 307). If the target knows with certainty that the threat will not be carried out then it do not matter how severe it is. The probability of a threat being carried out is never a fraction; it is always one or zero (Hovi, 1998, pp. 13–16). What constitutes a rational threat depends on how rationality is defined. A credible threat is one that the threatener would prefer to execute at the time it is to be executed. An actor will prefer to execute a threat when the expected worth of doing so surpasses the expected worth of failing to do so, otherwise would the threat be irrational and then incredible (Kilgour & Zagare, 1991, pp. 307–308). A threat also has to be **complete** and it will be when the target believes that if he/she complies with the threatener’s desires, then the threat will not be put into effect. The fifth and final condition is **clarity**. The target of a threat must understand the point that the threatener tries to convey to the target and it also must be clear what exactly the threatener want. It is also required that the target understand what consequences will be if he/she refuses to comply with the threat (Hovi, 1998, pp. 13–16).

3.5 Extended Nuclear Deterrence

The deterrence theories presented above are the most common deterrence theories where the focus is on deterring an attack against one self, but this is not the only deterrence strategy. The term extended deterrence means examples where a party wished to deter an attack by a second party against one or more third party(ies). Extended deterrence generally refers to nuclear deterrence and it applies principally to Europe through the NATO nuclear umbrella and the five countries hosting the United States nuclear weapons on their soil as part of a NATO nuclear-sharing arrangement (Stein, 1987, p. 326). It is relevant and important to look at what the differences between classical deterrence theory and extended deterrence theory

are. It is also important to look at the implications these differences have. P. K. Huth (1990, p. 272) writes that the credibility of extended deterrence depends upon whether or not the potential attacker believes that the defender possess “(1) military capabilities sufficient to inflict substantial military costs on the attacker in the event of armed conflict; and (2) whether the defender would actually use those capabilities if an ally was attacked” (ibid). The aspect of credibility when it comes to extended deterrence is a serious issue. Thomas Schelling explains what the difference between credibility in deterrence and extended deterrence are and why there is a difference: “The difference between national homeland and everything “abroad” is the difference between threats that are inherently credible, even if unspoken, and the threats that have to be made credible” (Schelling, 1966, p. 36). It is much clearer that one is willing to fight for one’s own country and government, it is not so clear that one will fight for someone else’s land, especially if it jeopardizes one’s own homeland (ibid).

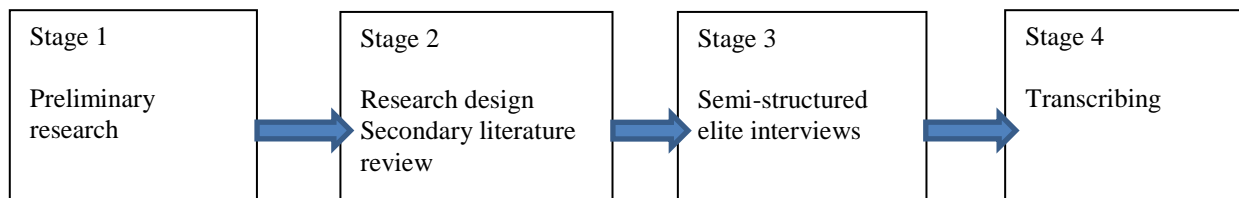
4 Methodology and Research Design

This thesis is a qualitative case study about the deterrence effect DPRK's nuclear weapons have today. This study uses deterrence theory to identify and analyze key concepts in order to explain and predict changes in the independent variable on the dependent variable, and can therefore be classified as a deductive study (Bryman, 2008, p. 9). It uses the theoretical perspectives, presented in Chapter 3, to shed light on the DPRK as an empirical case. According to Levy's (2008, p. 4) typology of case studies can this study be classified as a theory-guided case study. By using different theories do the study aim to get a better understanding of DPRK's nuclear weapons deterrent credibility toward the United States and the ROK.

4.1 The Research Process

Specific theoretical frameworks are used to analyze empirical findings. The research has been divided into several stages. This chapter is organized in accordance to the different research stages (see figure 4.1).

Figure 4.1 *The Research Process*



4.1.1 Stage 1: Preliminary Research

The reason why this thesis focuses on nuclear weapons, deterrence and the DPRK is because of experiences attained as a volunteer and campaigner with Norwegian People's Aid (NPA) and the International Campaign to Abolish Nuclear Weapons (ICAN). Preliminary research was conducted during this engagement. Fellow campaigners and staff at the NPA head office suggested writing a master thesis about nuclear weapons. Participation on several conferences relating to nuclear weapons questions was conducted, among others as a delegate for NPA at the ICAN Civil Society Forum in Oslo, 2-3 March and the Conference on the Humanitarian Impact of Nuclear weapons in Oslo, 4-5 March 2013. Several months were spent

investigating a possible angle and research question for this master thesis. Contact with the Norwegian Defence Research Establishment (FFI) was established in July 2013, and two supervisors were assigned to this thesis; Hege Schultz Heireng and Steinar Høibråten, in August of the same year. They have provided relevant theoretical and background information for this study.

4.1.2 Stage 2: Research Design and Literature Review

This stage of the process involved choosing a research design and reviewing secondary literature. A research design is “a plan that shows, through a discussion of our model and data, how we expect to use evidence to make inferences” (King, Keohane, & Verba, 1994, p. 118). This study is a qualitative case study with an intensive research design.

The definition of a case study depends on the scholar defining it. John Gerring (2007, p. 37) has stated it is “an intensive study of a single unit or a small number of units (cases), for the purpose of understanding a large class of similar units (a population of cases)”. Alan Bryman seems to agree with this, he believes that a case study is “[...] the detailed and intensive analysis of a single case” (Bryman, 2008, p. 52). In this specific study is the DPRK the unit being studied and the DPRK is again a member of the population consisting of the eight or nine states that possess nuclear weapons. George and Bennett (2005, p. 5) on the other hand has a slightly different definition than Gerring and Bryman. According to them is a case study “the detailed examination of an aspect of an historical episode to develop or test an historical explanation that may be generalizable to other events”. They introduce the aspect of generalization as a goal when conducting a case study, but the aspect of generalizability is one that is highly debated among scholars. This is due to the fact that relationships identified in one or a few cases might not be present in other cases. Making generalization based on a single case is problematic. The primary goal of this thesis is not generalization, but to get a deep insight and understanding of the DPRK. There is no way of knowing for sure if the relationships identified in this study are present in the seven or eight other states that possess nuclear weapons without testing the other cases as well. Case study research can contribute to generalization by identifying casual relationships in one or a small number of cases that can be tested over a large sample of cases. This may lead to what George and Bennett (2005, p. 31) calls “cumulatively contingent generalization”.

Gerring (2007, 88) writes that a single case is part of a larger universe or population of cases. A case is chosen from a larger population and “the reasons for this choice hinge upon the way in which it is situated within that population” (ibid: 88-90). The population in this is a small population that share several similarities, but is important to remember that these states also are a heterogeneous population.

Literature Review

A review of information written about the DPRK, its nuclear weapons program, nuclear weapons deterrent effect as well as theoretical frameworks was conducted during this part of the research process. A more narrow focus was applied when the DPRK was decided on as the case to be studied. The initial plan was to write about all the eight or nine states that possess nuclear weapons, but it became apparent that this would be too extensive.

Keohane, Verba and King (1994, p. 15) outlines two main criteria's that a scientific research question needs to satisfy (1): “a research project should pose a question that is “important” in the real world and (2) “A research project should make a specific contribution to an identifiable scholarly literature by increasing our collective ability to construct verified scientific explanations of some aspect in the world” (ibid).

The research question in this thesis embodies why a state wishes to acquire and why it chooses to hold on to its nuclear weapons through its focus on nuclear deterrence. Nuclear weapons deterrent effect is used as an argument to why a state needs these types of weapons, and this is definitely an aspect that is important in the real world. The DPRK was not chosen because it is an extreme or unique case. There are only eight or nine states that possess nuclear weapons and they can all be perceived as extreme and unique in their own ways. This thesis' research question is chosen because it is a field of deterrence that is under-studied. This makes the DPRK in this thesis an exemplifying case. According to R.K. Yin in (Bryman, 2008, p. 56) is an exemplifying case' objective “[...] to capture the circumstances and conditions of an everyday life or commonplace situation”. The aim of this thesis is not to improve the deterrence theories presented in Chapter 3, but to use the theories to say something meaningful in relation to the research question. The study is guided by an interpretive epistemological position which means that “[...] the stress is on the understanding of the social world by an examination of the world by its participants (Bryman, 2008, p. 366). Throughout this stage of the research process has the focus been on critically analyzing the

documents and theories due to the fact that most sources “have an intended purpose” and are colored by the authors views (George & Bennett, 2005, p. 199). Reliability when conducting literature review is important. Reliability measures the precision and replicability of a study. It means that the higher the reliability the more confident can one expect the measuring instrument to give the same result when the exact same measurement is repeated on the same object a second time (King et al., 1994, pp. 25–26). To secure this in the study have data triangulation and cross-referencing been used (Hellevik, 2002).

4.1.3 Stage 3: Constructing Interview Guides and Semi-Structured Elite Interviews

Semi-structured interviews is according to Bryman (2008, p. 321) a flexible process in which the researcher uses an interview guide, but is also free to ask follow-up questions and introduce new topics that the respondent is interested in. Semi-structured interviews can be used to gather descriptions along predefined variables, which is what this thesis intends to do. A focus on the interview objects ‘perspectives and context is very important in such interviews (ibid). Stage 2 and 3 worked as preparation and research for creating the interview guide. The guide as whole and individual questions has been discussed with both supervisors before being finalized and asked to the respondents. Every question has been thoroughly thought through in terms of the wording and understanding of the question, but also possible answers the respondents may give. It is also important to keep in mind that this process can result in preconceived notions by the interviewer on how a respondent will reply to a question. Being aware of this fact is important in such a process. The interview guide was also adjusted to each respondent based on the insight and information they could and would contribute with.

Semi-Structured Elite Interviews

Elite interviews were chosen as a scientific method for several reasons. (1) Key respondents have extra knowledge and familiarity with the topic (Andersen, 2006, p. 279). This is an important aspect because very little information is publically known about DPRK’s nuclear weapons program. Experts can give an insight that is not possible to acquire from secondary literature sources. (2) As stated earlier most of what is known about DPRK’s nuclear program is based on insecure intelligence sources and information from defectors who might have had a personal interest in portraying the situation as more severe and dramatic than it actually is. It

is important to critically assess the content of the data one has collected because it is not necessarily in the interest of the respondent or source of information to be objective and tell the truth (Berry, 2002, p. 680) and elite interviews figures as a form of source triangulations. The respondents interviewed do not have the same interest as detectors when it comes to portraying the DPRK and its nuclear weapons program.

When semi-structured interviews are conducted is there often inadequate information about selection of participants, transcription and processing of data, this is why reliability and validity is criticized when it comes to semi-structured and unstructured interviews. This has resulted in a specific consciousness about choices made in relation to the process of gathering and transcribing the information gathered during interview in order to make the study as transparent as possible. Some scholars argue that all research is “explicitly or implicitly informed by the experiences, aims and interpretations of the researcher” (Flowerdew & Martin, 2013, p. 112). This is especially the case for the type of interviews conducted in this study. In-debt studies are often criticized because an interviewer’s bias can affect the respondent’s answers and that they therefore are not objective (ibid). Awareness of this fact was made and kept it in mind when conducting interviews, but it is difficult to attain complete objectivity in social science research.

Three elite interviews were conducted for this thesis. The respondents were chosen closely in collaboration with both of the advisors for this thesis. Sverre Lodgaard which is a Norwegian Senior Research Fellow at the Norwegian Institute of International Affairs (NUPI) in Oslo was interviewed first. Sverre Lodgaard was chosen because he has worked with deterrence and proliferation questions since the 1970s and has written several acclaimed books and articles about themes discussed in this thesis. The interview with Sverre Lodgaard was conducted at his office in Oslo and took approximately one hour. The interview was taped with Sverre Lodgaard’s knowledge and approval. The second interview was conducted with James M. Acton; he is a Senior Associate at the Nuclear Policy Program at Carnegie Endowment for International Peace. James M. Acton is a physicist by training, but has great knowledge of political relationships and specializes in nonproliferation, deterrence, and disarmament. The interview with James M. Acton was conducted over the phone because he works and lives in Washington D.C. The interview also took about an hour and was taped with James M. Acton’s knowledge and consent. The third and final interview was with a diplomat who has several years of firsthand experience with Korean politics and this

interview was conducted face to face and lasted just over an hour. The interview was taped with the diplomat's knowledge and consent. The third person being interviewed wished to remain anonymous due to the sensitive nature of the data. Citations that are published without names can decrease the validity because the study becomes more difficult to replicate. On the other hand the respondent would have held information back if he or she knew his or hers name would be published in the text. One can therefore argue validity was increased because more information was obtained during this specific interview, which is essential for the analysis and the thesis as a whole. Citations were sent to all three respondents for approval before publishing, which was a condition for being allowed to use names in the text. This increases validity because possible inaccuracies and misunderstandings get cleared up before publishing of the thesis. A positive self-representation of one's own role and organization is a common problem in elite interviews. Keeping aware of this fact when conducting interviews are very important, but triangulation of information can help with this problem (Berry, 2002, p. 680). This means that elite interviews are combined with secondary literature and checked up against each other to make sure that the information provided in this thesis is as objective as it can. When information portrayed is that of the respondents it is stated and made very clear during the text.

4.1.4 Stage 4: Transcription

Transcription of the different interviews was an important part of the research process. Notes were taken during all three interviews, but a recording of the conversations also took place to make sure that no information was lost. Recording and transcription turned out to be a very useful tool because a lot of the information used in the analysis was obtained and understood during transcription process. After the publication of this thesis, will the three transcriptions, recordings and information that can indicate the diplomat's identity be anonymized and deleted.

4.2 Limitations and Strengths of the Research Design

Reliability measures the precision and replicability of a study. This can be difficult to obtain in a qualitative case study like this because perfect reliability is not possible to accomplish when studying humans and social phenomenon. This is because of the simple fact that people

change, interact and are affected by the first research. This means that it is impossible to get the exact same results a second time even if there are no random measurement errors (Sumner & Tribe, 2008, p. 114). A semi-structured interview setting will be especially difficult to copy. The reliability of a study is not only dependent on how the data was collected, but also on how the data is interpreted and used. Thoroughly describing the research process in detail, in combination with being as transparent as possible in relation to which documents and information the analysis is based upon, have taken place in order to overcome these reliability issues. The most important measure to strengthen the reliability is to “report how the data were created and how we came to possess them”. This is because it makes it possible for other researchers to assess the methodological choices and interpretations done by the researcher in charge (King et al., 1994, p. 51).

Validity was especially important when it came to the interview guide. Concept validity is concerned with whether one is actually measuring what one intends to measure. Concept validity is considered high if the operationalized variables cover all aspects of the concept at hand, and nothing more than that (Aberbach & Rockman, 2002, p. 674). The questions were written and asked in a manner so that they only captured the concepts that are measured in the thesis. An interviewer is supposed to be critical and have analytical control in order to improve validity and reliability of study (Andersen, 2006, p. 2). The statements given by the respondents during the interviews were therefore critically viewed afterwards. This is because it can be risky for a researcher to just blindly accept the perspectives portrayed by a respondent. A researcher’s job is to put the interpretations of a respondent in a larger context and identify possible broader patterns and structures not easily seen by others (Skog, 2004, p. 267). All three respondents were very good at clarifying when an opinion was their own or someone else’s. It did not come across as the respondents having an agenda other than showing and explaining their own views regarding the issues discussed in this thesis.

A methodological strength with this study is that single case studies (or a small number of cases) are considered to have stronger internal validity compared to other non-experimental designs. Single case studies allow in-depth studies of the process and identification of the causal mechanisms that connects the causes to the effects (Gerring, 2007, p. 43) (George & Bennett, 2005, pp. 21–22). This is what this thesis would like to accomplish and the reason for why the DPRK was chosen as the single case to be studied. A methodological challenge on the other hand was to determine the potential for generalization to the broader population

of states that possess nuclear weapons. External validity measures to what extent it is possible to make non-statistical generalizations to and across individuals, times and places with a reasonable degree of certainty (Lund, 2002, p. 121). Studies of a single case (or a small number of cases as in this study) are considered to have low external validity. One studies only one or a few units and it is therefore difficult to know how representative they are for the rest of the universe of cases (Lijphart, 1975). There is a trade-off between the detailed and rich explication of one specific case, and parsimony and broad applicability of theories (George & Bennett, 2005, p. 31).

5 How to Measure North Korean Deterrence Credibility

5.1 Ability and Will

The research question of this thesis is: *how are the United States and the ROK disposed to DPRK's nuclear deterrence?* This question looks into whether or not deterrence works, and is again divided into two parts a) *are DPRK's nuclear threats towards the United States and the ROK credible?* And b) *are the United States and the ROK's vital interests exposed to DPRK's deterrence?* The main research question is divided in accordance with deterrence theories presented in Chapter 3. This chapter will be a presentation and explanation of the following three analysis chapters.

Research question *a* looks at threat credibility because a threat has to be credible to work. A threat is according to theory presented in Section 3.3 a warning of the use of force intended to convince a potential aggressor not to undertake a particular action because the cost will be unacceptable or the probability of success extremely low. This thesis operationalizes the warning of force, meaning both oral and written threats directed at the states studied here along with nuclear actions conducted by the DPRK. This means that all written and oral threats, as well as DPRK's nuclear actions discussed in this thesis, are perceived as threats. Five conditions also have to be present according to Section 3.4.3 in order for a threat to be considered effective. These conditions are; relevance, severity, credibility, completeness and clarity.

The focus in this thesis is on the **credibility** condition because the DPRK must have both the ability and the willingness to attack another country with nuclear weapons for its nuclear deterrence to be considered credible, and the two aspects need to be present at the same time. That is why credibility is defined by the two terms: ability and will. Sufficient definitions of the two terms do not exist, and this thesis therefore defines *nuclear weapons ability* as the possession of the means or the skills to make, maintain and use nuclear weapons, and it defines the *will to use nuclear weapons* as having the willingness to carry out a given nuclear threat. **Completeness** of a threat is covered by the two aspects defining credibility because for a threat to be complete, the DPRK needs to have both the ability and the will to attack another

country with nuclear weapons. **Clarity** will also be indirectly discussed in the answer to research question *a* because coming chapters will discuss the United States and the Republic of Korea's responses to North Korean nuclear threats. How these two states have reacted to North Korean nuclear behavior and incidents will show if the North Korean nuclear threat is perceived as clear by the two other states.

Nuclear weapons are the most **severe** weapons in existence today. One nuclear weapon can kill several hundred thousand people in one instant and result in irreversible damage to the environment. Along with being severe, nuclear weapons must remain **relevant** for the security challenges not only for the states possessing nuclear weapons, but also for the rest of the world. Nuclear weapons and North Korean nuclear weapons in particular, are regularly discussed in international press and international organizations. The UNSC has imposed several sanctions on the DPRK due to its nuclear weapons program. The severity and relevance of these weapons is obvious and globally acknowledged and will therefore not be further discussed.

Chapter 6 will focus on the technical sides of DPRK's nuclear weapons program because its technical capabilities have great impact on DPRK's *ability* to use nuclear weapons. The North Korean *will* to use nuclear weapons is discussed in two chapters; Chapter 7 focuses on DPRK's will to use nuclear weapons against the United States. It does so by looking at North Korean rhetoric and threats directed at the United States, which American vital interests the DPRK are threatening and to which degree these vital interests are threatened. What one defines a vital interest is a complicated issue; some interests may be vital to one state, while others may perceive the same interests as less vital. Vital is in this thesis defined as an interest that is essential and absolutely necessary to the United States and the Republic of Korea. The chapter also discusses the American responses to DPRK's nuclear threats and behavior. The chapter does so in order to highlight to what degree the United States perceive DPRK's threats as credible. Chapter 8 is built up the same way as Chapter 7 except that the focus is on the Republic of Korea instead of the United States.

5.2 Why the DPRK is refusing to give up its nuclear weapons

There seems to be a universal agreement that using nuclear weapons in a wartime situation would be wildly inappropriate (Reif, 2013). The fact that nuclear weapons only have been used twice in a wartime situation supports this agreement. When the United States dropped the first atomic bomb no one really knew what effect the weapon would have. Now all countries have the knowledge, and today's nuclear weapons are much more sophisticated than those used in 1945. China and India have pledged to a *no first use policy* which means that they will not use nuclear weapons unless they are first attacked by an adversary using such weapons. Pakistan, Russia, the United Kingdom, the United States and France have pledged only to use nuclear weapons defensively which means that they will use nuclear weapons against states only if their territory or allied states are invaded or attacked. Israel has neither denied nor admitted to having nuclear weapons which also means that the country has not publically expressed a nuclear policy (Gerson, 2010; Ullman, 1972). Identifying patterns in DPRK's behavior is difficult because the country has not publically expressed a nuclear policy along the lines of the other states.

To understand DPRK's nuclear policy it is important to look at why the DPRK decided to acquire nuclear weapons and why the leadership in the DPRK has chosen to keep its nuclear weapons. Reliable information about the internal dynamics of North Korean decision-making is limited. This combined with the fact that the North Korean leadership has strong incentives to cover its true intentions in order to maximize its bargaining power and to minimize international reactions to its nuclear weapons program, makes questions about DPRKs nuclear weapons intentions hard to answer (Saunders, 2003). Did the leadership in Pyongyang decide that nuclear weapons are essential to regime survival, making a negotiated deal impossible? Or is the nuclear weapons program a bargaining chip that the DPRK is prepared to trade away for the right price? (Saunders, 2003). These are difficult questions to answer.

One of the main reasons for the DPRK maintaining its nuclear weapons program is, according to several analysts, *security* concerns. North Korean leaders seem to feel threatened by superior American military capabilities and by American talk about regime change and pre-emptive strikes. North Korean leaders may have determined that nuclear weapons are the only way to guarantee regime survival (Saunders, 2003). Wanting regime change and enforcing

regime change is two very different aspects. The United States has not showed intentions of invading the DPRK, and scholars have also come to this conclusion in various analysis (Acton, 2014 [phone interview]; Bumiller, 2002; Hunt, 2006) even though a main goal of the American government is to prevent the spread of nuclear weapons and to force the North Korean regime to comply with international treaties such as the NPT.

Even though the international community has little belief in the fact that the United States will invade the DPRK, the North Korean fear of an American invasion and a following regime change can be seen in relation to other states being invaded. Especially those states that once possessed weapons of mass destruction, but abolished them. One example is the American invasion of Iraq in March 2003; another is the overthrow of Muammar Gaddafi in Libya in 2011. The North Korean regime has several times made it clear that it believes that Muammar Gaddafi was executed because he gave up his nuclear weapons. Peter Hughes (former British Ambassador to the DPRK) said in 2011 that the regime in Pyongyang believes that NATO would never have waged an air campaign against Muammar Gaddafi's forces if the Libyan dictator had not given up its weapons (NTI, 2011). Saddam Hussein was also forced to give up his weapons of mass destruction and he as well was killed while Iraq was invaded and regime change took place (Baer, 2013). This could mean that the Kim dynasty believes that if they were to give up its nuclear weapons then the DPRK would get invaded and that Kim Jong-un would be killed because that is what happened to Saddam Hussein and Muammar Gaddafi.

Another scenario often discussed among scholars is the possibility that the DPRK are willing to negotiate its nuclear and missile program for a deal guaranteeing North Korean security and sovereignty. This is a scenario that argues that the North Korean leadership feels threatened by superior American capabilities and by American efforts to sanction and isolate the regime both economically and politically. According to such a scenario, the DPRK has developed a nuclear weapons program in order to create the necessary leverage to build a new relationship with the United States. Such a possible new relationship could ensure the regime's survival and create a better environment for economic reforms in the DPRK (Saunders, 2003). Evidence in contradiction of such a scenario includes North Korean statements saying that the North Koreans will not under any circumstances give up its nuclear weapons (Reuters, 2013). North Korean nuclear actions and rhetoric also back up the point that such a scenario is unlikely. In sum, *security reasons* may explain why the DPRK are

refusing to give up its nuclear weapons. This thesis is based on that premise and specifically the fact that regime survival is the main reasons for North Korean refusal to abandon its nuclear weapons program.

5.3 The Rationality of the Kim Regime

Kim Jong-un's rationality is a topic that is discussed by scholars (see (Roy, 1994; Smith, 2000)). This topic is of great importance because DPRK's willingness to use nuclear weapons is dependent on whether or not the regime is rational, because a unitary rational actor is guided by its own national interest and the ultimate national interest of every state is survival (see Section 3.4.1). If Kim Jong-un is rational, he will do everything in his power to protect his regime, and using nuclear weapons would put his regime at risk. There is disagreement in opinion regarding Kim-Jong un's rationality, but most scholars view the regime in Pyongyang as a rational one¹³. Acton is one of the scholars who perceive him as a rational actor:

I do not personally worry about Kim Jong-un waking up one morning and launching a nuclear weapon. I believe the North Korean regime is rational, not in the sense that it values the same things as we value, but in the sense that it does have priorities and it acts towards what protects those priorities, and the survival of the regime is the priority. I don't think the regime is going to do anything to risk that. It is not going to attack the United States or people in the region with nuclear weapons unprovoked (Acton, 2014 [phone interview]).

According to theory presented in Section 3.4.1, states or persons classified as risk-takers are the largest group to worry about because members of this category play at the edge of rationality. To carry out an attack involves calculating risks, and these can become miscalculations. The possibility of miscalculations can never be excluded even though supporters of nuclear deterrence theories argue that the possibilities of nuclear miscalculations are minimal (Geller, 1990). The three different Kim regimes in the DPRK have always been hostile towards the United States and its administrations. This hostile relationship is mostly due to the two countries' troubled past with each other (see Chapter 2). This holds the basis for the present relationship between the two, but today a lot of the threats and rhetoric coming

¹³ ¹³ See "Is the Kim Family Regime Rational and Why Don't the North Korean People Rebel?" by David S. Maxwell or "Keeping Kim: How North Korea's Regime Stays in Power" by Daniel Byman (Byman & Lind, 2010; Maxwell, 2012)

from Pyongyang is due to misperceptions and uncertainties in relation to how the two countries act toward each other and what one country believes to be the other's intention. Miscalculations and misperception therefore play a big role in the relationships the DPRK has with the United States in particular, but also with the ROK (Acton, 2014 [phone interview]).

The main purpose of this thesis is not to define the DPRK and its leader's rationality. However this aspect is tightly tied together with North Korean will to use nuclear weapons. Being a rational actor means that one is not willing to recklessly use nuclear weapons. Rationality according to western standards might as one can see above be perceived somewhat different than North Korean rationality, but the written and oral sources used in this thesis defines the Kim regime as a rational one according to definitions presented in Chapter 3 because the survival of the regime is the main goal and acting irrational would jeopardize that.

6 DPRK's Ability to Use Nuclear Weapons

To build nuclear weapons is extremely comprehensive, expensive and technically demanding. The work employs at least several hundred scientists and engineers for years on top of requiring million dollars investments (Toft, 2004, p. 83). A nuclear weapons program involves a lot more than just the possession of a few weapons.

It is a process of several steps, and the following main features needs to be included if one wishes to make one or more nuclear weapons:

1. Producing fissile material
2. Designing and building a nuclear charge (a nuclear device)
3. Developing means of delivery for the nuclear weapons.
4. Weaponization of the nuclear test device that is, making it sufficiently small, robust and reliable to be used with the chosen means of delivery.

The DPRK has demonstrated its ability to carry out step 1-2, but that does not mean it possesses the ability to develop step 3-4. This section is organized in accordance to the four steps and ends with a conclusion summarizing DPRK's overall ability to use nuclear weapons.

6.1.1 Making Fissile Material

Producing fissile material¹⁴ is the first and most difficult step in making nuclear weapons. Two different paths can be taken; the plutonium and the uranium path. The most common fissile materials are uranium-235 and plutonium-239. One needs either a uranium enrichment

¹⁴ Fission is a decomposition of a heavy nucleus. Energy and typically two or three free neutrons are released during fission. A chain reaction occurs when the neutrons that are released in the fission, induce at least one new fission; this maintains the process. Material that can sustain a chain reaction is called fissile material. All nuclear charges require fissile material. A critical mass is the minimum amount of a given fissile material required to sustain such a chain reaction. A nuclear explosion needs a minimum of one critical mass. (Toft, 2004, pp. 85–87).

plant for the acquisition of uranium-235 or a nuclear reactor and reprocessing plant for the acquisition of plutonium-239 (Toft, 2004, pp. 85–87). The DPRK is known for reprocessing plutonium, but speculations have arisen whether or not the DPRK is also producing weapons grade uranium. The United States officially confronted the DPRK with evidence suggesting that the DPRK was pursuing a highly-enriched uranium (HEU) program in 2002. Dr. Siegfried Hecker¹⁵ visited DPRK's enrichment plant in April 2009 and was surprised both by the size and advanced state of technology at the uranium enrichment facility. The United States did not know of the facility's existence until Dr. Hecker visited it in April 2009 (Roehrig, 2013, p. 1). The Pyongyang leadership confirmed this speculations regarding HEU when they informed the UN Security Council in 2009 that it was ready to enter the final phase of uranium enrichment, but the extent of DPRK's HEU program has never been made public (Roehrig, 2013, p. 1). It is virtually impossible to verify whether or not a state is enriching weapons grade uranium because most technology inside enrichment plants are kept secret, and the DPRK has not gained the IAEA access to its enrichment plants (Centre for Arms Control, 2013; Høibråten et al., 2013, p. 47; Toft, 2004, p. 85). If the plant in the DPRK actually was in full operation in November 2010, which is what is being claimed, then it is inconceivable that it is the first enrichment plant in the DPRK (Høibråten et al., 2013, p. 47). The DPRK is believed to have a plutonium stockpile of between 50 kg and 70 kg with a portion of this being used in its three nuclear tests, but the exact stockpile is unknown. This means that the DPRK only has a small amount of plutonium, and it could be difficult for them to produce more because, but it is important to keep in mind that a lot of this information is speculative.

The reason why the DPRK wishes to enrich uranium is because it would allow the country to increase its arsenal relatively quickly (Acton, 2013; Centre for Arms Control, 2013; Høibråten et al., 2013, p. 40), but the reason why the DPRK has continued with the reprocessing of plutonium along with an alleged HEU program is a bit strange because when one first has an enrichment plant, it is easier and less expensive to continue using that than going back to the plutonium path. Analysts believe the DPRK have chosen to do both, and there are several

¹⁵ Siegfried Hecker is an American nuclear scientist who worked as the Director of the Los Alamos National Laboratory from 1986 till 1997. Today he is a professor (research) in the Department of Management Science and Engineering and a senior fellow at the Freeman Spogli Institute for International Studies (FSI). Dr. Hecker's research projects at CISAC focus on reducing the risks of nuclear terrorism worldwide and the challenges of nuclear India, the DPRK, Pakistan, and the nuclear aspirations of Iran. Dr. Hecker has since 2004 visited the DPRK once a year in an unofficial capacity to assess the plutonium program at the Yongbyon Nuclear Scientific Research Center. In 2010 did North Korean officials revealed a modern uranium enrichment facility with close to 2,000 centrifuges to Dr. Hecker (CISAC, 2014; Roehrig, 2013)

possible explanations to why. The first reason may be that the DPRK just wants to produce as much fissile material as possible without taking into account the economic obstacles. The second possible explanation is that plutonium has some advantages when it comes to building miniaturized warheads, and maybe the DPRK wants plutonium for that cause. The third possible option is that DPRK's uranium enrichment process is not working properly. There is no proof that the DPRK is actually capable of producing HEU. It is probable that it is, but no such proof exists (Acton, 2014 [phone interview]; Davenport, 2013b). Regardless of DPRK's ability to enrich weapons grade uranium, the regime in Pyongyang has a plutonium stockpile demonstrating their ability to carry out the most difficult step in making nuclear weapons.

6.1.2 Nuclear Weapon Design

There are two types of nuclear charges; fission charges and thermonuclear charges. Furthermore, there are also two kinds of fission charges: gun-barrel design and implosion design. Gun-barrel designs are rarely used by states possessing nuclear weapons today. Implosion design is believed to be the design used by the North Koreans and is preferred by states possessing nuclear weapons because;

1. It enables the use of plutonium
2. The blast force is greater if the operation is successful
3. The charge can be made lighter because plutonium has a lower critical mass than uranium (Toft, 2004, pp. 89–90).

DPRK's nuclear weapon designs are not known, but its three nuclear tests have given analysts some indications. Two main indicators are important after a nuclear test: the yield of the device and the type of fissile material used. Combined these two can reveal much about DPRK's nuclear weapons program (Nikitin, 2013, p. 13). DPRK's first nuclear test took place on 9 October 2006. Media has reported that the North Korean leader informed China 20 minutes before the test was executed that his country planned to test a charge of 4 kilotons. The test only had a yield of about 1 kiloton, and was the world's weakest first nuclear test. The North Koreans claimed the test was successful, while the international society viewed it as a flop (Centre for Arms Control, 2013; Høibråten et al., 2013, pp. 41–42). The second test took place on 25 May 2009. Official and unofficial reports vary on estimated yield of the

explosion, but it is generally regarded as being 2-3 kilotons, and again deemed unsuccessful by the international community and successful by the North Koreans themselves (ibid).

The third test took place on 12 February 2013. The South Korean Ministry of Defense estimated that the third test was between 6 and 7 kilotons (Centre for Arms Control, 2013; Nikitin, 2013, p. 14). The DPRK claimed that the third test was to develop “a smaller and light” warhead. The North Koreans have also claimed this test to be successful, and this time the international community agrees. Both test number one and test number two most likely involved plutonium, but there have been speculations as to whether or not the third test involved uranium (ibid). These speculations are due to DPRK’s revealing of its modern uranium enrichment facility to Dr. Siegfried Hecker in 2010, but have not been confirmed.

As shown throughout this thesis, DPRK’s nuclear weapons program is surrounded by secrecy. It is impossible to know the exact design of their nuclear weapons, but the three tests prove that the DPRK has in fact successfully developed nuclear charges. The third test also shows that their nuclear weapons have evolved and have been improved, since this test has been judged as successful by several sources. Some researchers believe that the second test was an attempt to improve the weapon tested in 2006. The possibility that a new weapon was tested in 2013, may indicate that the improvements the leadership in Pyongyang wanted to make had led to a successful design.

6.1.3 Means of Delivery

A delivery system is the means by which nuclear weapons hit their intended targets. A delivery system can be an aircraft carrying nuclear bombs or missiles with nuclear warheads¹⁶. A missile can be launched from land, ships or submarines. In this section, most attention will be given to missiles, as ballistic missiles are the most appropriate means of delivery for North Korean nuclear weapons. Ballistic missiles are classified according to the maximum distance they can travel. The maximum range is determined by the missile’s

¹⁶ Other means of delivery can also be used, but these two are the most relevant ones and therefore the only two included here.

weight, the weight of the fuel and the engine (Arms Control Association, 2012). Four general classes¹⁷ of ballistic missiles are commonly referred to:

- Short-range ballistic missiles (travels less than 1,000 kilometers)¹⁸
- Medium-range ballistic missiles (travels between 1,000–3,000 kilometers)
- Intermediate-range ballistic missiles (travels between 3,000–5,500 kilometers)
- Intercontinental ballistic missiles (ICBMs) (travels more than 5,500 kilometers) (Arms Control Association, 2012).

It is estimated that the DPRK has over 200 medium-range *Nodong* ballistic missiles. Figure 2.1 in Chapter 2 shows DPRK's ballistic missiles maximum range according to open sources and estimates. The DPRK is not able to reliably hit the continental United States¹⁹ with a nuclear missile due to the fact that the DPRK's most advanced operational missile is a *Nodong* missile (see Table 6.1). A *Nodong* missile has an estimated maximum range of 1,300 km. It is important to keep in mind when discussing these topics that the ranges given in Table 6.1 are estimates based on open sources. It is impossible to exactly estimate a missile's maximum range because it depends on the missile's payload, and this information is not publically known (Arms Control Association, 2012).

Table 6.1 *DPRK's Estimated Ballistic Missile Inventory*

System	Status	Range
Nodong-1 ²⁰	Operational	900-1,500 km
Taepodong-1	Tested (unsuccessfully)	1,500 - 2,500 km
Taepodong-2 (2-stage)	Tested/Development	4,000-15,000 km ²¹
Taepodong-2 ²² (3-stage)	Tested/Development	Up to 15,000 km
Musudan/BM-25/SS-N-6 <i>variant</i>	Development?	Up to 3,200 km

(Arms Control Association, 2012; Høibråten et al., 2013, pp. 48–54)

¹⁷ Missiles are often classified also by their fuel-type. Two sorts of fuel-types exist: liquid or solid propellants. Ballistic missiles with solid fuel require less maintenance and preparation time than missiles with liquid fuel (Arms Control Association 2012)

¹⁸ Short-range and medium-range ballistic missiles are also called theater ballistic missiles while ICBMs and long-range ballistic missiles are referred to as strategic ballistic missiles (Arms Control Association 2012).

¹⁹ Other United States interests in the region that DPRK most likely can hit will be discussed in Chapter 6.

²⁰ *Nodong* and related missiles are believed to be developed by the DPRK with foreign assistance from the late 1980s until the early 1990s. The missile went through a failed test in 1992 and a relatively successful test in 1993 (Høibråten et al., 2013, p. 48).

²¹ Different sources estimate different ranges for Taepodong-2. One source estimates 10,000-15,000 km while another estimates 4,000-8,000 km (Høibråten et al., 2013, pp. 51–52). Due to the highly uncertain number, the whole possible range is reflected in table 6.1.

²² A *Taepodong-2* took off from a launch site in western DPRK in April 2012 but failed 90 seconds into its flight and fell into the Yellow Sea (Chanlett-Avery & Rinehart, 2013, p. 7).

Table 6.1 lists the different types of missiles. Along with the missiles mentioned here, the DPRK has over 600 missiles called *Scud-B* or *Scud-C* that are both operational with a range of 300 km to 700 km (Arms Control Association, 2012). These missiles are generally not considered particularly well suited to deliver nuclear weapons, although the USSR had some *Scud* missiles with a nuclear mission during the Cold War. *Nodong* is the first relevant missile for nuclear weapons delivery in the DPRK (Høibråten et al., 2013, p. 48). The *Taepodong-1* missile is by many viewed as a development step towards launchers for a space program and ICBMs such as *Taepodong-2/Unha-2*. *Taepodong-1* missiles are operationally very vulnerable due to a long preparation time before launch. The *Musudan* missile has not been flight tested, but has been paraded on land mobile ramps in Pyongyang. If the DPRK gets these missiles operational, they will be highly relevant for nuclear weapons, and the range can be as long as 3,200 km depending on the load (Høibråten et al., 2013, pp. 48–49). There is a genuine concern in the United States intelligence community about these road mobile missiles. Their capability has never been tested, and the international community is of the opinion that testing is a while away (NTI, 2013b, 2013d; Oswald, 2013). It is made clear that there are good reasons to be worried about these missiles. This is partly because the world has no idea where the DPRK is in terms of its warhead program. The DPRK will be able to build a miniaturized warhead program, but the timeframe is unknown (ibid).

There are great uncertainties relating to the capacity and development of the North Korean ballistic missiles. One cannot know for sure if the DPRK has the capacity to hit their intended targets when they threaten with a nuclear weapons strike, but in order for the DPRK to hit the continental United States it will need an ICBM. According to the Arms Control Association, the DPRK developed and has tested such a ballistic missile in the form of *Taepodong-2*, but it is not yet operational. That means the DPRK is not reliably able to hit the continental United States with a ballistic missile carrying a nuclear weapon. The Republic of Korea on the other hand shares a border with the DPRK, and *Nodong* missiles can reach all of the Korean Peninsula. Seoul is only 194 km away from Pyongyang. According to available figures and estimates, the North Koreans have the ability to attack the Republic of Korea with nuclear weapons as they have threatened to do. On the other hand, at present the continental United States is, according to public sources, not vulnerable to a North Korean nuclear weapons attack.

6.1.4 **Weaponization**

Weaponization constitutes manufacturing and maintaining a set of activities and facilities that can produce and maintain functioning nuclear weapons. This means that step 1-3 must have taken place, and that the weapons produced work as intended along with suitable delivery means. It is known that the DPRK has produced fissile material and used it in a nuclear weapons design as one can see from the previous sections. The regime also has operational *Nodong* missiles that can reliably hit within the range of Figure 2.1. But full nuclear weaponization requires more than a few nuclear charges and a few ballistic missiles with a relative short range. Nuclear weaponization implies a fully operational nuclear weapons program, and there are uncertainties related to whether or not the DPRK has achieved that.

The biggest uncertainty when it comes to DPRK's weaponization is the size of its nuclear weapons. After DPRK's third nuclear test in February 2013, the Korean Central News Agency (KCNA) issued a statement saying that the DPRK had tested a "miniaturized and lighter device with greater explosive force than previously" (Sanger & Sang-hun, 2013b). This sparked concern over whether or not the regime in Pyongyang had actually mastered the technology to make miniaturized warheads that are small enough to be mounted on ballistic missiles.

David Albright, the President of the Institute for Science and International Security, wrote in February 2013 that "North Korea likely has the capability to mount a plutonium-based nuclear warhead on the shorter range Nodong missile". Albright stated in the same article that it was unlikely that Pyongyang had developed this capability for ICBMs (Albright, 2013). The Defense Intelligence Agency (DIA) expressed "moderate confidence" in April 2013 that the DPRK had developed the ability to place a miniaturized nuclear weapon on a ballistic missile (NTI, 2013c). This moderate confidence has been disputed by other intelligence agencies as well as by the South Korean government and President Obama (Chicago Tribune Times, 2013; Sanger, 17, & 2013, 2013). It is very important to keep in mind that the DIA in their report made it clear that "reliability will be low" for any hypothetical North Korean nuclear missile (NTI, 2013c). These divergent analyses and opinions about DPRK's ability to place a miniaturized nuclear warhead on a ballistic missile result in questions about the actual weaponization. In order to fulfill requirements for weaponization, the DPRK needs to have built functional nuclear weapons, have developed missiles that can reliably hit its intended

target and possess nuclear charges small enough to fit on the missiles. What are DPRK's Nuclear Weapons Abilities?

Having the ability to use nuclear weapons involves the four steps presented in the sections above, but ability is not a yes or no answer; there are degrees to having the ability to use nuclear weapons. Due to the secrecy surrounding these weapons, it is impossible to get a full and exact overview of DPRK's ability to use nuclear weapons, but as shown from the text above a lot of information is known.

It is known that the DPRK have produced fissile material, because it would be impossible to test its nuclear explosive devices without it. Even though there are uncertainties surrounding the North Koreans' ability to produce HEU, one knows from its three nuclear tests that the DPRK have at least produced a certain amount of plutonium. The three nuclear tests can indicate that the North Koreans have been successful in assembling an implosion nuclear weapon design, but this is not proven. These two steps have been known to the international community since the first test took place on 9 October 2006. The uncertainties surrounding DPRK's ability to use nuclear weapons are related to step 3, means of delivery for nuclear weapons, and 4, weaponization.

At present the DPRK do not have a reliable capability to hit targets in the continental United States with a ballistic missile carrying a nuclear weapon. According to deterrence theory, that makes Pyongyang's deterrence effect less effective because the threat is not credible. As shown by Table 6.1 a threat directed at a target in the continental United States is weakened. According to sources outside the DPRK, the DPRK do not yet have operational ICBMs, which means that the North Koreans cannot follow through with its threats towards the continental United States today. Deterrence is therefore not at its fullest when it is directed at the continental United States. However, it is important to keep in mind that it is unknown how long it will take the North Koreans to develop a reliable capability. What North Korea considers to be a reliable capability might not be identical to what the United States considers to be a reliable capability. If a North Korean missile has a 50% chance of hitting the United States that might be satisfactory for its purposes while the United States might demand 98% reliability, for example. The missile program in the DPRK is present and it will be able to reach the continental United States in the future if the regime continues to spend substantial amounts of money on the program and testing the missiles. James M. Acton does not want to overestimate the immediacy of the ICBM threat from the North Koreans, but he do believe it

is emerging (Acton, 2014 [phone interview]; NTI, 2013d). However, it is hard to predict any time frame. Another important fact to keep in mind is that there is a genuine concern in the United States intelligence environment about DPRK's road mobile missiles. This capability has never been tested, and it is not expected to be seen in the near future.

The United States also have further interests in close proximity to the DPRK beyond what has been discussed in this section. This topic will be further introduced and discussed in Chapters 7 and 8. The ROK is at a higher risk than the United States because most of DPRK's ballistic missiles can reach the entire Korean peninsula, and steps 1-3 is therefore applicable for DPRK's nuclear threats directed at the ROK.

Step 4, weaponization, is the most complex of all the four steps. It can be derived from step 1-3 that the DPRK in some sense has accomplished partial weaponization, but questions related to the size and range of North Korean nuclear weapons are much more difficult to answer. The DPRK is regarded as one of the last countries closed to external insight, pressure and influence which means that it is difficult to know the extent of DPRK's progress regarding its nuclear weapons program. All views presented in this thesis that are not collected from North Korean state sources are educated guesses made by scholars and researchers which makes it impossible to firmly determine whether or not the DPRK has accomplished full weaponization of its nuclear charges. It is difficult to give a complete answer to whether or not the DPRK has the ability to produce, maintain and develop a nuclear weapons program. But as one can see from this text, in terms of DPRK's nuclear abilities, the Republic of Korea is more at risk than the continental United States for a nuclear weapons attack from the Democratic People's Republic of Korea.

7 DPRK's Will to Use Nuclear Weapons against the United States

The DPRK has made clear that it is “opposed to any act of forcing American-style democracy on the DPRK” and that “the DPRK's nuclear deterrence is neither a means of dealing nor a bargaining chip to be used for improving the inter-Korean relations” (KCNA, 2014). The threats, statements and information that have come out from Pyongyang have made it clear that the DPRK is not willing to give up its nuclear weapons. The regime in Pyongyang has since the Obama Administration took office in 2009 demanded to be recognized as a NWS. The DPRK has also made clear that a peace treaty with the United States must be an incentive to denuclearization. The last demand is according to North Korean officials a way of building trust between the two states (Chanlett-Avery & Rinehart, 2013, p. 6). These two demands are contradictory. The last demand is not a direct way to build trust, but it reflects a wish to do so.

The wish to build trust is most likely propaganda, because looking at the threats directed at the United States through YouTube videos and statements through the KCNA (which will be introduced later in this chapter), it seems like building trust is not the North Korean goal. The premise of negotiations between the United States and the DPRK has always been that the North Koreans are going to give up its nuclear weapons, but the North Koreans have made it clear that this will not happen (Reuters, 2013). Whether or not more agreements between the two countries will take place in the future is hard to predict, but it is unlikely at this moment when looking at North Korean rhetoric and threats directed at the United States. The North Korean news agency KCNA often portrays news articles with threats directed at either the United States or the Republic of Korea:

The hostile forces should not misjudge the will of the army and people of the DPRK to annihilate enemies. We will lose only the Military Demarcation Line and the wall of division from the sacred war of justice and gain national reunification, the lasting peace on the Korean Peninsula and the eternal prosperity of the nation (KCNA, 2013b).

The question being discussed in the present chapter is whether or not there is any accuracy to the North Korean threats directed at the United States. This is a complicated question with complicated answers. It is important to keep in mind that one does not know the exact answer,

but one can make analyses based on the information available. According to James M. Acton (2014 [phone interview]) there are circumstances where one could imagine the North Koreans using nuclear weapons, but it is important to keep in mind that the regime in Pyongyang is not under any illusions, they know that if they were to use nuclear weapons they would be in misfortune with the international community. The DPRK might use nuclear weapons in a scenario where a conflict escalates on the Korean peninsula. In such a scenario where the United States gets involved, the DPRK might view the consequences of not using nuclear weapons as worse than using nuclear weapons. The specific circumstance that this could happen is in the event that the DPRK believes rightly or wrongly that the United States is trying to accomplish regime change. The North Koreans might in such a situation believe that if it uses nuclear weapons it might scare the United States off (Acton, 2014 [phone interview]). At the same time, the DPRK is well aware that the United States possesses a large arsenal of nuclear weapons. It is also important to recognize the role misperception can play in such a scenario. The United States might not want regime change, but the North Koreans believe they do. A concern is that Kim Jong-un is very young and generally inexperienced with foreign affairs, which can create additional risks (Frank, 2011).

7.1 DPRK's Nuclear Threats Directed at the United States

None of the other seven or eight states possessing nuclear weapons has threatened other states with nuclear weapons strikes like the DPRK has done on numerous occasions against both the United States and the ROK (NTI 2014):

Should the U.S. ignite a war in the end, it will cause flames of justice to flare up like an erupting volcano in which the aggressors will perish and the cursed Military Demarcation Line disappear for good (KCNA, 2013a)

The threats coming from Pyongyang through the KCNA is unlike any other state rhetoric. It is important to keep in mind that the KCNA represents the government's views and that it is a state news agency and propaganda tool. It is also important to understand the severity behind North Korean rhetoric and the fact that quotations presented here are not the only ones. KCNA news reports show the deep hatred the North Korean government has towards the United States:

He [President Obama] acts just like a monkey with a red bum irrationally eating everything – not only from the floor but also from trees here and there...Africa's national zoo will be the perfect place for Obama to live with licking bread crumbs thrown by visitors (NK News, 2014)²³

This specific news report does not represent a nuclear threat directed at the United States, but it does show the language that the North Korean government officials use. One does not find any other governments officials using similar language directed at other Presidents. This chapter is trying to show that the rhetoric and threats from the DPRK are completely different from any other state, being so explicit and outrageous. Just a year prior to this statement a spokesperson for the DPRK Foreign Ministry stated that:

First, now that the U.S. is set to light a fuse for a nuclear war, the revolutionary armed forces of the DPRK will exercise the right to a preemptive nuclear attack to destroy the strongholds of the aggressors and to defend the supreme interests of the country (KCNA, 2013a)

This represents a clear nuclear threat directed at the United States. Whether these threats represent a warning or just propaganda trying to deter the United States is impossible to know, but written threats in the form of KCNA news are not the only ones coming out from Pyongyang. Among the many threats, Uriminzokkiri²⁴ posted a four-minute long video on their YouTube channel titled "Firestorms will rain on the Headquarters of War". The first two minutes of the video shows still photos of United States fighter jets, B-52 bombers and aircraft carriers. These images are intended to portray the United States as a nuclear power trying to bully the DPRK into doing what it wants. The narrator of the video warns that "Second by second, the fuse of a nuclear war is burning" while also stating that "There is no limit to the range of our strategic rockets" while showing animated pictures of the United States Capitol building exploding in a fireball (The Telegraph, 2013).

²³ NK News is not to be confused with KCNA. NK News is a website that provides news and analysis about the DPRK. The reporting is based on information collected from recently returned western visitors to the DPRK, stories filed by the KCNA, interviews with North Koreans living abroad, and reports published by NGOs and western governments.

²⁴Uriminzokkiri is a North Korean official website that distributes news and propaganda from the state media in Korean. Uriminzokkiri's server is located in China and the news distributor also has YouTube, Facebook, and Twitter accounts.

This propaganda video is just one of many threats directed at the United States, but as stated several times throughout this thesis, the DPRK does not have the reliable capability to reach the United States with nuclear weapons. Several researchers agree with this and one of them is Sverre Lodgaard. He has stated that

The DPRK does not at this point threaten the continental United States, but it may be about to pose a threat to American interests in the region around the Korean Peninsula (Lodgaard 2014[interview])

If estimates presented of North Korean missiles are true, the DPRK will be able to hit Japan, the Republic of Korea and some United States bases in the Pacific with nuclear weapons (see figure 2.1), but it is important to keep in mind that the estimates presented in this thesis is just that, no exact information of North Korean nuclear capability is available. More testing and development of nuclear weapon designs and ballistic missiles remains, and it is very unclear whether the DPRK presently has the capacity to mount a nuclear weapon onto a ballistic missile (see Section 6.1.4). Whether the North Korean capacity is reliable or not, the United States has security commitments to several countries in Northeast Asia that are within the range of *Nodong* missiles, and these commitments have been the recipient of North Korean threats:

The artillery units of the Korean People's Army, including the rocket units, have been on standby, zeroing on the targets in the U.S. mainland, Hawaii, Guam and South Korea (KCNA, 2013d).

The American commitments abroad include Japan under the 1960 Treaty of Mutual Cooperation and Security between the United States and Japan. The treaty commits the parties to “act to meet the common danger” from an “armed attack against either Party in the territories under the administration of Japan” (Treaty of Mutual Cooperation and Security between Japan and the United States of America, 1960). This means that the United States is obliged to defend Japan if the country was attacked. That is why the United States has a huge number of military and civilian personnel stationed in Japan. The American military strength in Japan consists today of approximately 38,000 military personnel, 43,000 dependents, 5,000 Department of Defense civilian employees, and 25,000 Japanese workers (U.S./Japan Alliance, 2014). These numbers add up to over 100,000 people (including the Japanese

workers) and the 100,000 people and military equipment constitute a vital interest for the United States in Japan, which also lies within the range of North Korean *Nodong* missiles.

After stating that the United States has vital interests in Japan, it is important to look at whether or not these interests are threatened by North Korean nuclear weapons. The DPRK has a very hostile relationship with the United States as previously stated, but the regime in Pyongyang also has a very strained and hostile relationship with Japan. The tension between the two states goes back to before the Korean War when the Japanese colonized the Korean Peninsula (Roy, 1988). The DPRK has explicitly threatened Japan with a nuclear weapons attack:

The DPRK always remembers that Japan was an accomplice in the Korean War ignited by the U.S. Japan always remains a target of the DPRK's revolutionary armed forces. Once Japan makes even a slight provocation against the DPRK, the former will be hard hit before any others. Those who dream of getting a "shower of gold" on the Korean Peninsula are bound to perish in the nuclear disaster. Japan would be well advised to face up to the situation and behave itself (KCNA, 2013c).

The regime in Pyongyang stated in 2013 that "nuclear war is unavoidable" and that its first target will be Japan (KCNA, 2013c). It is unlikely that the DPRK would attack another country unprovoked due to the fact that it would most likely mean the end of the regime (Acton, 2014 [phone interview]; Diplomat, 2014 [interview]; Lodgaard, 2014 [interview]). The DPRK also knows that Japan is under the American nuclear umbrella, and that similarly to the ROK the United States is obliged to defend Japan in case of a possible attack. It would be very risky for the DPRK to challenge retaliation from the United States. It is harder to assess whether or not the DPRK would retaliate with nuclear weapons if it was the country being attacked first. Even though many analysts see North Korean nuclear weapons as purely defensive (ibid), it does seem like Japan is taking the threat from the DPRK seriously, because the Japanese government vowed to strike any North Korean missiles it deemed a threat after the DPRK launched a medium-range ballistic missile into the Sea of Japan in early 2014 (Frizell, 2014). This North Korean action prompted retaliation by the South Koreans that also took place in the Sea of Japan. The regime in Pyongyang fired two missiles on 26 March 2014 which was apparently to show defiance just as the United States, the ROK and Japan began discussions on how to contain North Korea's nuclear threats (Frizell, 2014). After this incident, the United States again vowed to protect Japan when Secretary of defense

Chuck Hagel stated that the United States was standing firmly by its mutual defense agreement with its ally. He also stated that there is no “weakness on the part of the United States as to our complete and absolute commitment to the security of Japan” (Frizell, 2014).

Japan is not the only target the DPRK has threatened outside of the continental United States. As quoted from the KCNA news report, presented at the top of this section, the regime in Pyongyang has threatened Guam, which is an American territory in the western Pacific Ocean. This territory has had strategic significance to the United States forward deployment for a long time. The island has two important American military bases and approximately 160,000 people live on Guam including 6,000 military personnel (Kan, 2013, p. 1). The United States began in the year 2000 to build up air and naval forces in order to boost American deterrence and power projection in Asia (Kan, 2013). After the regime in Pyongyang threatened to attack Guam, the United States said that it would send a missile defense system to Guam to defend it from the DPRK as the American military adjusted to what United States Secretary of Defense Chuck Hagel called a "real and clear danger" from the DPRK (J. Kim & Stewart, 2013). The fact that the United States Secretary of Defense called this threat a real and clear danger is interesting and it is not possible to know what the American government means by this statement. It is often difficult to assess whether a statement is pure honesty or a calculated response.

It is important to look at the dates of the threats coming from the regime in Pyongyang. The threats towards Guam came in April 2013, just after the UNSC had imposed sanctions on the DPRK after its third nuclear weapons test in February 2013. The White House stated just after the threats had been expressed that there was no sign of North Korean preparation of its 1.2 million soldiers for war (J. Kim & Stewart, 2013). The lack of military preparation could indicate that the threats are a part of domestic politics to strengthen Kim Jong-un's position. Strengthening of a position is important in the DPRK, and the celebration of the anniversary of Kim Il-sung's birthday on 15 April (Rauhala, 2014) took place just after the North Korean regime directed new nuclear threats at the United States. This is of course not possible to prove, but this is a possible explanation looking at Pyongyang's previous rhetoric and way of acting. The threats might have had domestic purposes, but the United States took them seriously and seemed to view them as real and dangerous even though Guam is not within the range of a *Nodong* missile. In order to hit Guam the DPRK needed a reliable *Musudan* missile (see figure 2.1). The DPRK has paraded *Musudan* missiles, and after the threat against Guam

the regime in Pyongyang, according to several sources quoted by Yonhap²⁵, moved what seemed to be a *Musudan* missile to the North Korean east coast (McCurry, 2013). The South Korean defense ministry declined to comment the speculations. The DPRK has a launch site on the northeastern coast that has been unsuccessfully used in the past to test long-range rockets (ibid). This shows that the United States has vital interests on Guam and that Pyongyang has threatened to attack the island. At the moment the DPRK does not have a reliable missile that can reach Guam, but the fact that the United States is taking the threats seriously could indicate that it is scared of possible future North Korean nuclear capabilities. This was made apparent already in 1998 when the commission assessing the ballistic missiles threats to the United States concluded that

North Korea also poses a major threat to American interests, and potentially to the United States itself, because it is a major proliferator of the ballistic missile capabilities it possesses--missiles, technology, technicians, transporter-erector-launchers (TELs) and underground facility expertise--to other countries of missile proliferation concern. (Commission to Assess the Ballistic Missile Threat to the United States, 1998)

Along with Japan, the United States does have other vital interests within range of the North Korean *Nodong* missiles. DPRK's neighbor on the Korean Peninsula, the Republic of Korea, is host to approximately 25,000 American soldiers and around 150,000 American civilians (USFK, 2014). As stated earlier the ROK is under the United States nuclear umbrella, and the relationship between the two states runs deep. The United States and the Republic of Korea conduct annual "Key Resolve" and "Foal Eagle" drills (France-Presse, 2014). Key Resolve is an exercise that lasts just over a week and is mainly computer simulated; Foal Eagle on the other hand is an eight-week long military exercise that involves air, ground and naval field training. The military drills play out different scenarios to combat a possible North Korean invasion, but the Americans and South Koreans both insist that the two military drills are purely defensive (ibid). The two military exercises are annually condemned by the DPRK as rehearsals for invasion (France-Presse, 2014). After the third North Korean nuclear test in February 2013, the UNSC imposed new sanctions on the regime in Pyongyang. The annual

²⁵ Yonhap is the largest South Korean News Agency. It is based in Seoul and provides news articles, pictures and other information to newspapers, TV networks and other media in the Republic of Korea.

military drill between the United States and the ROK started just a month after the test and involved over 13,000 American and South Korean troops (ibid).

Key Resolve and Foal Eagle show not only the seriousness of the relationship between the United States and the Republic of Korea, but also the seriousness of the North Korean position and possible threat on the Korean Peninsula. These exercises might possibly just be defensive as the Americans are claiming. But even so if the Americans did not have any vital interest to protect, it is less likely that the military drills would be conducted on the scale that they are. Before the military drills took place in 2011, the DPRK threatened "all-out war" in response to the military exercises. The KCNA also warned that Seoul would be turned into a "sea of flames" (BBC, 2011). The DPRK has on several occasions directed threats at the United States and the ROK in connection with the military drills. There are no sources indicating that the United States and the ROK have cancelled their war games due to the increased level of tension and the threats directed at the two states from the DPRK. This fact can indicate that the United States and the ROK are not swayed by North Korean threats.

The United States has several vital interests in the Republic of Korea. American military and civilian personnel are vital interests due to the large number of Americans in the ROK. Key Resolve and Foal Eagle indicate that the military and political relationship between the United States and the Republic of Korea is another vital interest. The ROK is very dependent on this cooperation in order to protect itself from a possible attack from the North (Diplomat, 2014 [interview]) but the Americans might be almost just as dependent on this relationship due to the unique position it gives the United States on the Korean Peninsula and in Northeast Asia.

7.2 American Reactions to North Korean Nuclear Threats

Since the DPRK first threatened to leave the NPT the American reaction towards North Korean nuclear threats and behavior has ranged from bilateral engagement to calling the leadership in Pyongyang part of an "axis of evil" (President George W. Bush, 2002). The American concerns in the DPRK cover crucial security, political, and human rights²⁶. The regime in the DPRK has repeatedly provoked the United States, but no publically available evidence shows that the American administrations have seriously considered a direct military

²⁶ Only security issues related to nuclear weapons will be discussed in this thesis.

strike or an explicit policy of regime change due to the threat of devastating war on the peninsula since 1994 (Chanlett-Avery & Rinehart, 2013, p. 3). American relations with the Republic of Korea influence United States behavior towards the DPRK because the bilateral military alliance between the two countries obligates the United States to defend the ROK from any possible attack from the DPRK. This part of the chapter will look at the United States reactions to North Korean nuclear provocations. Five nuclear incidents and American reactions will be discussed in detail: when the DPRK threatened to withdraw from the NPT in 1993, when the DPRK withdrew from the NPT in 2003 and DPRK's three nuclear tests in 2006, 2009 and 2013. These incidents have been chosen due to the severity of these actions and the availability of American reactions to the incidents. The five incidents discussed below will also be discussed in relation to South Korean reactions in Chapter 8. The American reactions discussed in the chapter below could either be American *actions* (for example negotiations, sanctions etc.) or official American *statements* (rhetoric, threats etc.). North Korean nuclear incidents have not always triggered both actions and statements from the American administration, which is why both kinds of reactions are not covered in all sections below. It is important to look at statements along with actions because official American statements are thoroughly planned and might indicate if the United States is taking a North Korean threat seriously.

7.2.1 The DPRK Threatens to Withdraw from the NPT – 1993

The North Korean regime announced its withdrawal from the NPT on 11 March 1993. The Clinton administration responded with saying that a withdrawal was unacceptable and that Pyongyang instead had to fully implement the Safeguard Agreements²⁷ to the IAEA (Wit, Poneman, & Gallucci, 2004, pp. 26–28). The American government viewed DPRK's withdrawal as a great security threat to the whole world along with weakening the NPT and its intention to prevent the spread of nuclear weapons. The Clinton administration's reactions to the North Korean threat of withdrawal were to forge a strategy which focused on building a global coalition against DPRK's move (ibid).

²⁷ All non-nuclear weapons states under the NPT is obliged to conclude comprehensive safeguards agreements with the IAEA, hereby allowing the agency to inspect declared nuclear facilities, radioactive sources or special fissionable material (IAEA 2005, 5).

Unofficial talks began between the permanent members of the United Nations Security Council (UNSC). The United States, Great Britain and France sought a UN condemnation of DPRK, but China blocked the efforts to secure such a statement in order not to provoke the regime in Pyongyang (Wit et al., 2004, p. 31). United States intelligence analysts warned the Clinton administration that the DPRK most likely would view sanctions as an act of war and therefore react violently. The Clinton administration therefore chose a milder path that meant they would seek to build a coalition and increase pressure on the regime in Pyongyang through gradual escalation. The American government also wished to get China on board eventually. This strategy was carried out when the UNSC on 8 April 1993 expressed concerns and welcomed all efforts to resolve the situation (Wit et al., 2004, pp. 32–34).

Along with building a global coalition against the regime in Pyongyang, the Americans realized that a coercive diplomacy would require an integrated use of carrots and sticks. If they were not able to stop DPRK's quest for nuclear weapons through negotiations, then the only real alternative left was military action (Wit et al., 2004, p. xv). It might have been possible for the United States to strike and destroy DPRK's nuclear facilities from the air without suffering retaliation during the early 1990s. However, the United States intelligence community and its military leaders viewed it differently (Wit et al., 2004, p. xv). When negotiations with the regime in the DPRK stalled once again in the spring of 1994, the Clinton administration again considered an air strike on DPRK's nuclear facilities (ibid). The United States and the Democratic People's Republic of Korea signed the *Agreed Framework* on 21 October 1994 and this agreement "froze Pyongyang's activities at its Yongbyon nuclear complex" in exchange for United States shipments of "heavy fuel oil" and United States "proliferation resistant light-water reactors" (Agreed Framework, 1994).

Due to the signing of the agreement, no one will ever know how close the two countries came to a second Korean war (Wit et al., 2004, p. xv). The considerations of a military strike on DPRK's nuclear facilities during the early years of the Clinton administration show that the United States took DPRK's plans of pursuing a nuclear weapons program seriously. It is impossible to know what the Clinton administration feared the most, but Joel S. Wit, Daniel

B. Poneman and Robert L. Gallucci's²⁸ views shows that the United States did fear a North Korean regime with nuclear weapons, and that they were willing to go far to stop it.

It seemed at that point like the regime in Pyongyang was willing to trade its nuclear weapons program for favorable incentives within the Agreed Framework. For some time, there was reason to believe that the DPRK was willing to abandon its military program as long as they received what they had been promised, but the agreement started to fall apart towards the end of the 1990s. The United States started to back out, partly because Congress was reluctant to pay, making the United States unable to deliver on time the fuel oil that the Agreed Framework promised. The DPRK became suspicious of the United States when the fuel oil did not arrive in the winter. Also, President Clinton may have been hesitant because it was a common view at that time that communist regimes would fall one by one (Lodgaard, 2014 [interview]).

7.2.2 The DPRK Withdraws from the NPT – 2003

The DPRK announced once more its withdrawal from the NPT in 2003, and this time the country withdrew. The regime in Pyongyang issued a statement on 10 January 2003 saying that the DPRK “declares its total freedom from the binding force of the safeguards accord with the International Atomic Energy Agency” (BBC, 2003; CNN, 2003). Despite this the regime in Pyongyang made clear that it planned to limit its nuclear activities to peaceful purposes in a statement saying “our nuclear activities at this stage will be confined only to peaceful purposes such as the production of electricity” (BBC, 2003; CNN, 2003).

Several governments condemned DPRK's decision to quit the NPT including France, Japan and the Republic of Korea²⁹. White House Press Secretary Ari Fleischer (2003) stated in a press briefing on 10 January 2003 that

(...) given the fact that North Korea had already acknowledged that it was violating the very treaty that it had signed up to, it comes as no surprise, frankly, that they've made this announcement. Nevertheless, it is disappointing. This is an issue that gives

²⁸ The three authors of the book *Going Critical: The First North Korean Nuclear Crisis* are all former United States officials. Joel S. Wit was a coordinator for the 1994 U.S.-North Korea Agreed Framework. Daniel B. Poneman was a part of the National Security Council Staff under President George H.W. Bush and President Bill Clinton and Robert L. Gallucci led the team that negotiated the Agreed Framework.

²⁹ The Republic of Korea's reactions will be discussed in chapter 8

serious concern to the international committee and to the United States -- to the international community and to the United States (Fleischer, 2003).

The wording from the United States after the DPRK withdrew from the NPT was very mild compared to other nation's condemnation of Pyongyang's actions. Journalists present at the press briefing with Ari Fleischer on 10 January 2003 did also question the mild tone coming from President Bush's administration. One journalist said; "Speak of the condemnation of North Korea in strong terms, but the word "disappointing" is pretty mild in the language that's come from this podium, and so forth" (ibid). Press Secretary Fleischer responded by saying that "I used several adjectives. I said it was disappointing, it's serious concern, it's brought upon" (ibid). The United States made it clear that it viewed DPRK's withdrawal as a serious concern, but this way of speaking of North Korean nuclear aspirations changed a lot during President Bush's administration. Just a year earlier on 29 January 2002 President George W. Bush harshly criticized the regime in Pyongyang in his State of the Union address:

North Korea is a regime arming with missiles and weapons of mass destruction, while starving its citizens. (...) States like these, and their terrorist allies, constitute an axis of evil, arming to threaten the peace of the world. By seeking weapons of mass destruction, these regimes pose a grave and growing danger. They could provide these arms to terrorists, giving them the means to match their hatred. They could attack our allies or attempt to blackmail the United States. In any of these cases, the price of indifference would be catastrophic. (President George W. Bush, 2002)

This new way of speaking about the DPRK was contradictory to the rhetoric by the same administration just a year later. President Bush also called the DPRK a rouge regime in the 2002 National Security Strategy (The White House, 2002). President Bush declared in 2002 that indifference would be catastrophic, but one could claim that the "mild" wording that came just a year later from the same administration was partly indifference. The interesting question is to look at why the tone coming from President Bush changed so dramatically in just one year. What President Bush meant by indifference in 2002 is not known, but the rhetoric indicate something stronger than diplomatic actions. However, after DPRK's withdrawal from the NPT in 2003, the White House Press Secretary made clear that "the President continues to view this as a situation that needs to be worked through in a diplomatic fashion" (Fleischer, 2003).

7.2.3 DPRK's First Nuclear Test – 2006

The DPRK conducted its first nuclear test in 2006, also during President Bush's administration. Even though President Bush represented a more harsh rhetoric towards the regime in Pyongyang than President Clinton had, his first statement after the nuclear test in 2006 stated:

We (China, Russia, South Korea and Japan) reaffirmed our commitment to a nuclear-free Korean Peninsula, and all of us agreed that the proclaimed actions taken by North Korea are unacceptable and deserve an immediate response by the United Nations Security Council. ...The United States remains committed to diplomacy, and we will continue to protect ourselves and our interests (President George W. Bush, 2006).

This statement is of a very different character than President Bush's State of the Union speech in 2002. Bush here represents a view that is more in line with President Clinton. Indifference to DPRK's first nuclear test did not happen, but the reprimands were presented through the UNSC. Resolution 1718 was unanimously adopted in 2006, and it prohibited the DPRK from conducting further nuclear tests or launching of ballistic missiles. It also called for the country to completely abandon its efforts to acquire nuclear weapons, and the resolution included a range of sanctions as well as to urge the DPRK to immediately return to the negotiating table for multilateral talks regarding its nuclear weapons program (United Nations Security Council, 2006). The sanctions did not work fully as intended because the DPRK continued to pursue and further develop its nuclear weapons program. The sanctions might have delayed DPRK's process to develop nuclear weapons, but it did not stop the process entirely. President Bush used a hard tone before DPRK's nuclear weapons program was verified, but the United States did little officially outside UN channels after Pyongyang's first nuclear test.

7.2.4 DPRK's Second Nuclear Test – 2009

The Obama administration's reactions towards the DPRK have been very similar to those of President Clinton and President Bush. President Obama's reactions to Pyongyang's rhetoric and actions are often characterized as "strategic patience". This means that the Obama administration is waiting for DPRK to come to the negotiating table at the same time as they are maintaining pressure on the regime (Chanlett-Avery & Rinehart, 2013, pp. 3–4). The main

elements of the current American policy regarding the DPRK consist of insisting that the DPRK commit to move toward denuclearization while DPRK also mends its relationship with the ROK and returns to the Six Party talks³⁰. The Americans also want China to have a rougher line with the Pyongyang regime while inflicting arms interdictions and sanctions towards the DPRK. An American fear is that DPRK will sell nuclear technology to another country or non-state actor due to the country's poor economy (Chanlett-Avery & Rinehart, 2013, pp. 3–4).

It may seem like the Obama administration's way of dealing with the Kim family might not be working as intended. For example, the UNSC issued a reprimand after a long-range ballistic missile test in May 2009, but the North Korean regime conducted its second nuclear test in November 2009. The United States on the other hand followed the North Korean act with coordinating passage of UNSC Resolution 1874 which outlines sanctions to deny financial assistance to the regime in Pyongyang (Chanlett-Avery & Rinehart, 2013, p. 5). This resolution also created a legal basis for states to embargo ships coming from the DPRK if the ships were suspected of carrying items that had previously been banned by UNSC resolutions, and the resolution also demanded that the regime in Pyongyang "not conduct any further nuclear test or any launch using ballistic missile technology" (NTI, 2009). The sanctions and the warning from the UNSC did not have the intended effect after the first nuclear test in 2006 neither after the second nuclear test in 2009 (Chanlett-Avery & Rinehart, 2013, p. 5). President Barack Obama condemned the test saying they will only "further isolate" the DPRK (Davenport, 2013b). Kim Jong-il responded to Obama's threats by an official KCNA statement saying that Pyongyang would continue testing and building its arsenal unless the United States recognized its right to launch satellites and develop its nuclear program (Davenport, 2013b). As one can see President Obama reacted towards the first nuclear test that occurred during his presidential period, but the reaction was mild. In connection to the first two nuclear tests, the United States has taken the UN route and followed diplomatic lines. There has been no military attack on the DPRK, or any other attempts except diplomatic, to make the regime in Pyongyang abandon its nuclear weapons.

The DPRK has been very clear on what it wants from the Americans (see Section 7.1). The United States have acknowledged that DPRK possesses nuclear weapons, but the United

³⁰ The six-party talks are a series of multilateral negotiations held intermittently since 2003 and attended by China, Japan, the DPRK, Russia, the ROK, and the United States. The purpose of the talks is to dismantle DPRK's nuclear weapon program. The talks are hosted in Beijing and chaired by China.

States refuses to recognize the DPRK as a NWS. American officials have stated and insisted that the situation is “unacceptable”. Many analysts believe that the DPRK is not willing to give up its nuclear weapons and that the demands are purely tactical moves (Chanlett-Avery and Rinehart 2013, 7). The North Koreans confirmed this when they stated in March 2013 that the North Korean nuclear weapons were not a bargaining chip and that they would not be abandoned for even billions of dollars (ibid). Holding onto power is important in internal affairs as well as holding on to leverage in international affairs.

7.2.5 DPRK’s Third Nuclear test – 2013

Before the third nuclear test occurred, the Obama administration threatened to penalize the DPRK through the UN and the UNSC if a third nuclear test took place (Sanger & Sang-hun, 2013a). When the third nuclear test took place 12 February 2013, President Obama reacted by stating that “we will lead the world in taking firm action” (Crowley, 2013; President Barack Obama, 2013). The President also stated that the DPRK

(...) would only achieve security by meeting its international obligations. (...) Provocations of the sort we saw last night will only isolate them further as we stand by our allies, strengthen our own missile defense and lead the world in taking firm action in response to these threats. (President Barack Obama, 2013)

After the test was conducted, the UNSC met in an emergency session that resulted in the members unanimously backing a statement which called the DPRK’s actions “grave violation” of UN resolutions. The UNSC states that “in line with this commitment and the gravity of this violation, the members of the Security Council will begin work immediately on appropriate measures in a Security Council resolution” (ibid). The United States once again responded to DPRK’s nuclear threats and actions with sanctions through the UNSC even though President Obama had stated that he would lead the world in taking firm action. The truth is that the UNSC already had applied so many sanctions against the DPRK that there were few useful sanctions left that the UNSC could apply. The only sanction according to David E. Sanger and Choe Sang-Hun (2013a) that would truly hurt the DPRK was if China cut off oil and other forms of aid. According to the two journalists, the Chinese at that point feared instability and chaos in the DPRK more than it feared a growing North Korean nuclear capability, and that is why the Chinese refused to cut off ties with the DPRK (ibid). The United States reactions to the North Korean nuclear threats indicate that “firm action” again

means acting within the UNSC. Considering whether the UNSC is the right way of reacting to DPRK's actions is outside the scope of this thesis, but it is interesting to look at the fact that previous UNSC sanctions have not worked as intended as the North Koreans have continued to pursue its nuclear weapons program.

There are a limited number of reactions at hand for the United States in addition to condemning the DPRK through the UNSC. The only other options are military action and military intervention in another country due to that country's possession of nuclear weapons. Such reactions would constitute serious steps that could result in severe consequences for the United States. American reactions towards DPRK's nuclear actions have been much harsher rhetorically prior to the nuclear tests than after the nuclear tests have been conducted, but that does not necessarily mean that the United States is frightened by North Korean nuclear threats.

This chapter has focused on the accuracy of North Korean threats directed at the United States and American reactions to the threats. One cannot say anything with absolute certainty when discussing North Korean nuclear weapons due to the secrecy surrounding nuclear weapons. It does however seem from the discussion above that the DPRK at this moment have the capability to hit American vital interests in the region, but whether these capabilities are reliable or not is difficult to estimate. The American reactions to DPRK's nuclear behavior vary, and some incidents seem to be taken more seriously than other by the Americans. The American reactions are in the form of written statements and UN sanctions, but one can question what other reactions would have been realistically possible. Chapter 9 will summarize the findings of this chapter and a more thorough conclusion will be found there.

8 DPRK's Will to Use Nuclear Weapons against the Republic of Korea

The relationship between the DPRK and the ROK is very different from the relationship between the DPRK and the United States. The DPRK was the richer of the two Koreas forty years ago; today, the Democratic People's Republic of Korea is starved, isolated and sanctioned. Its population is gradually becoming aware of the fact that the ROK is superior to them in many aspects, particularly in economic terms (Noland, 2007). The South Korean people have for many years lived with the threat from the North. Since the end of the Korean War, the ROK has been aware of the threat implicit in DPRKs conventional military forces. North Korean artillery has been directed at Seoul, and if the DPRK were to attack Seoul, then much of Seoul would be laid in ruins. It would be impossible to evacuate the population of Seoul due to the city's population density and crowded roads. Still, the South Koreans have been exposed to the conventional threat for such a long time and have learned to live with it (Diplomat, 2014 [interview]).

A nuclear war between the two Koreas would mean the end of the government in the DPRK because the ROK is covered by the United States extended deterrence through their military alliance. The ROK depends on the United States for security and military capabilities. If a conflict should arise between the South and the North, the United States would be forced to intervene not only due to its military alliance with the ROK, but also because of the presence of American personnel in the South (USFK, 2014). The DPRK would lose a nuclear war because the Americans would intervene according to the military alliance with the ROK. But there are questions related to what military means the United States would use. The diplomat (2014) interviewed does not believe that the ROK would accept that the United States used nuclear weapons in a possible conflict. One reason is that it would be impossible to prevent nuclear fall-out – depending on the current weather conditions – from affecting the populations of the ROK, Japan China, and Russia in addition to the people in the North. The United States would most likely be able to take out the North Korean artillery within twenty four hours using conventional warfare, although the DPRK artillery is becoming more mobile and protected (Diplomat, 2014 [interview]). A conventional war could mean the end of the North Korean army and regime. Hence, the United States would not need to use nuclear weapons towards the DPRK during a possible conflict between the two Koreas (ibid).

Sverre Lodgaard (2014 [interview]) like James M. Acton view DPRK's harsh rhetoric and threats as a part of its deterrence policy. Sverre Lodgaard believes that DPRK's goal is to avoid an attack on the DPRK. The North Korean tactics are therefore defensive. When a regime is subjected to regime survival, it is possible that it is willing to use nuclear weapons. But DPRK's rhetoric is unlike anyone else's, and Sverre Lodgaard sees no rationale for the country to be offensive. The regime in Pyongyang uses such harsh threats to keep the enemy away (ibid). The diplomat interviewed in relation to this thesis agrees with both Sverre Lodgaard and James M. Acton. In addition the diplomat states that the elite in Pyongyang consist of about 2,000 people. These people are very privileged. The rhetoric they use is ideologically based, but it is difficult to know how deeply members of the North Korean elite today believe in Kim Il-sung's *Juche* ideology. Through recent events, it is known that an opposition to Kim Jong-un exists. But in the end, the survival of the privileged is closely linked to regime survival (Diplomat, 2014 [interview]).

The DPRK regime is unlike any other, and *Juche* might have lost some of its "power" in terms of deciding foreign and domestic policies. On 30 March 2014 the regime in Pyongyang expressed the importance of the *Songun* ideology in a KCNA news report, stating that

Expressing full support to the Songun politics pursued by supreme leader Kim Jong-un, we hope that all Korean people will shatter the vicious moves of the separatists at home and abroad and dynamically conduct the movement for national reunification on a nationwide scale, rallied close under the banner of By Our Nation Itself. The Korean people's struggle for peace and reunification of the Korean peninsula and national prosperity is sure to win thanks to the ever-victorious Songun politics (KCNA, 2014)

Unification of the two Korean states was Kim Il-sung's big dream, but today reunification meets important obstacles on both sides, particularly in the South. The two Koreas are gradually becoming two distinct nations. Young people in the South generally no longer feel any attachment to their brethren in the North. Many feel that reunification will become too costly for the ROK, since the DPRK would not to be able to take care of itself. Many business people in the ROK are primarily interested in the DPRK as a market (Diplomat, 2014 [interview]). Although the North Koreans generally long for reunification, many would also have their doubts, because they know that the ROK has become a fiercely competitive society, in which they would lose out. Most North Koreans would therefore probably prefer to remain in the North, because they fear to be stigmatized and looked down upon in the South.

Merely on the people-to-people level, this makes reunification prospects for the two countries somewhat complicated (Diplomat, 2014 [interview]). But if the DPRK were to admit that reunification was no longer possible, the psychological effect on the population might be severe. Moreover, the regime would seem to have failed in terms of Kim Il-sung's big dream. It is important to keep in mind the enormous admiration and status Kim Il-sung still has among the people in the North and in terms of shaping the regime's policies. He is still worshiped as the President of the Republic, a title which will belong to him forever (ibid).

8.1 DPRK's Nuclear Threats Directed at the Republic of Korea

The diplomat (2014 [interview]) stated during the interview that the Korean people are very homogeneous when it comes to culture and language, but politics polarizes the two Korean populations. Even though Koreans have a clear Korean identity, they are also very warrior like in their rhetoric towards one another as well as towards other "enemies" (ibid). Soldiers on both sides of the Korean peninsula are well equipped for war and well aware of the fact that the two countries are still formally at war with each other. The South Koreans have a long experience with not being able to trust its neighbor in the north (ibid). The DPRK does not try to rebuild this trust; instead it keeps on threatening the ROK and its people with conventional and nuclear attacks:

The regime would be well advised to be well aware that it is fated to meet the complete ruin which can never be recovered by the nuclear carrier and anything else more powerful than it if it continues pursuing reckless military provocations against the DPRK, backed by its American master (KCNA, 2013f).

The Republic of Korea is at much greater risk than the United States of being hit by North Korean nuclear weapons due to ROK's close proximity to the DPRK. On 23 November 2010 the DPRK fired scores of artillery shells at Yeonpyeong, a South Korean island. This attack killed four South Koreans and injured many more (Sudworth, 2010). The attack came after a South Korean artillery exercise in the waters in the South. The ROK claimed that military drills in the area were not intended at the DPRK. The South Korean military went to "crisis status" after the North Korean shelling, and the ROK also threatened with military strikes and an exchange of fire was set off in one of the most severe clashes between the two states since

the Korean War ended in 1953 (J. Kim & Jae-won, 2010; McDonald, 2010). The shelling surprised the rest of the world as well as the Republic of Korea, and it is hard to imagine what Kim Jong-il may have wanted to get out of the attack (Sudworth, 2010). Another major incident also occurred between the two Korean states in 2010 when the South Korean warship Cheonan was sunk killing 46 South Korean sailors. Many assume that the ship was sunk by a North Korean torpedo, but the DPRK has never admitted to being responsible for the attack (Sang-hun, 2010). There are speculations about whether the two events were intended to show Kim Jong-un's strength against military leaders in anticipation of taking over after his father, but no proof of this exists.

The DPRK is a state filled with problems. Pyongyang's foreign policy, which is built on aggression, has resulted in several international sanctions (Davenport, 2013a). A siege mentality has occurred as a result of the foreign policy and the consequences that have come of it. Military provocations can be seen as a strategy of maintaining regime security. This is a very risky strategy, but it has been proven successful through the continuation of the Kim regime (Frank, 2010). The incidents in 2010 show that the ROK is still on the DPRK's foreign policy agenda, and the incidents have not been the only serious events between the two Koreas. The DPRK has also threatened the ROK on other occasions:

Once a war is ignited on the peninsula, it will be an all-out war, i.e. a merciless sacred retaliatory war to be waged by the DPRK. It does not want to see foreigners in South Korea fall victim to the war. The committee informs all foreign institutions and enterprises and foreigners including tourists in Seoul and all other parts of south Korea that they are requested to take measures for shelter and evacuation in advance for their safety (KCNA, 2013e).

This KCNA news article came just a few days after Pyongyang suggested on 5 April 2013 that foreign diplomats stationed in the DPRK should evacuate for their own safety (Starr, Mullen, & Sterling, 2013). The 2013 Korean crisis is by some classified as one of the most severe since the 1968 Korean crisis when the DPRK captured USS Pueblo, a United States Navy spy ship (Vorontsov, 2013). The 2013 Korean crisis (referred to as the "North Korean crisis" by media) started due to an escalation of tension between the DPRK, the ROK, the

United States and Japan. This tension erupted from UNSC Resolution 2087³¹ which again was a reaction to North Korean flight testing of the *Unha-3* missile in December of 2012 (Council on Foreign Relations, 2013). The regime in Pyongyang escalated its harsh rhetoric, suggesting nuclear attacks against the ROK, Japan and the United States. The tension escalated further by the annual military drills between the United States and the ROK, which took place during the same period of time (Press, 2013; Williamson, 2013). Pyongyang has regularly claimed that the military drills are a preparation for invasion, but after the 2013 drill the North Korean regime began to show heightened anger. Before the UN sanctions were decided, the DPRK threatened to fire a nuclear missile at the United States and so warned the ROK of a nuclear war on the divided peninsula. According to the South Koreans, the regime in Pyongyang cut off the hotline³² that was meant to maintain the armistice treaty³³ between the two countries. When the military exercise started, the North Koreans apparently did not answer two calls. The hotline was installed in 1971 and has only been disconnected on five previous occasions (Press, 2013; Williamson, 2013). The regime in Pyongyang said it had the right to carry out a pre-emptive nuclear strike before they cut off the hotline, but such rhetoric is not unusual for the DPRK. The South Korean president, Park Geun-hye, said at the time that the security situation was “very grave” and that the ROK would “deal strongly” with provocations coming from the DPRK. President Park Geun-hye also made it clear that she would be ready to talk to the Kim regime if it “comes out on the path toward change” (BBC, 2013a).

During this crisis Kim Jong-un, according to the KCNA, visited the front-line military units that had been involved in the 2010 shelling of Yeonpyeong, and the same reports said that Kim Jong-un had urged the North Korean soldiers to be ready to “annihilate the enemy” at any time (BBC, 2013a). During the crisis, it seemed like the DPRK was trying to build a sense of crisis internally; among other things a large rally was staged in Pyongyang (ibid). An exaggerated external threat is a useful tool to gather the people around the leadership. From

³¹ Resolution 2087 condemned the launch of ballistic missile technology in violation of the sanctions imposed on the DPRK previously. The launch took place on 12 December 2012. The UNSC demanded that the DPRK not proceed with any further such activities and expressed its “determination to take significant action” in the event it did so (Council on Foreign Relations, 2013).

³² The hotline was installed in 1971, and is intended as a means of direct communication at times of high tension, but is also used to co-ordinate the passage of people and goods through the DMZ (BBC, 2013a).

³³ The two Koreas are still technically at war because an armistice was signed at the end of the 1950-53 Korean conflict, rather than a peace agreement (Williamson, 2013).

this time to the present, it seems that Kim Jong-un has continually tried to cement his power base.

The DPRK has previously broken agreements. Hence, withdrawing from an agreement such as the one that occurred during the 2013 Korean crisis does not mean war. However, it created an unstable situation. The shutting down of the hotline left the two Koreas more exposed to misunderstandings, and misunderstandings could have resulted in severe consequences. The 2013 Korean crisis did not result in war, but Kim Jong-un's actions during this period were unpredictable, and it is important to remember that he is young and inexperienced with foreign affairs:

The way one very experienced North Korea watcher described it to me is that it was like watching an 18 year old having his first driving lesson. The first time you are put in front of a car most people have the tendency to steer the wheel much too far. You exaggerate every movement. That was the problem with Kim Jong-un. He does not really understand how to calibrate his responses so that they do not go too far (Acton, 2014 [phone interview]).

During conversations with the three respondents interviewed for this thesis it was made clear that the crisis in 2013 was serious and not to be underestimated. James M. Acton (2014 [phone interview]) stated that “you can easily imagine last year's crisis getting out of hand” because imagine a scenario like the 2013 Korean crisis where the DPRK makes nuclear threats against the United States. The United States responds with starting their B-2s³⁴. What if the DPRK then believe or worry that the B-2s are carrying nuclear weapons? During such a possible scenario, things could get out of hand. Because of Kim Jong-un's inexperience, there is possibly a much higher risk of an escalating situation (ibid). The 2013 Korean crisis shows that the relationship between the two states is unstable with little, if any trust between the two. Hence the crisis could have escalated to a war. The Republic of Korea has more vital interests at risk than the United States, because it shares a border with the DPRK and is within the reliable range of North Korean ballistic missiles. The DPRK has threatened the ROK with nuclear weapons on several occasions. Tensions between the two countries are high as can be learned from the 2010 and 2013 crises. The Republic of Korea does probably have specific

³⁴ A B-2 is An American strategic bomber also known as Stealth Bomber and the B-2 is capable of delivering both conventional and nuclear weapons against heavily defended targets (National Museum of the US Air Force, 2010).

vital interests that are of more importance than others in terms of North Korean nuclear threats, but the whole of the ROK is a vital interest due to the state's close proximity to the DPRK. North Korean ballistic missiles can reach all of the ROK.

8.2 South Korean Reactions to North Korean Nuclear Threats

The relationship between the two states on the Korean peninsula has been tense for a long time. The DPRK in the north view the ROK in the south as an American puppet and enemy, but the relationship between the two Koreas has changed drastically over the years since 1993³⁵. The same North Korean nuclear incidents that were discussed in Chapter 7 will be discussed below. The same incidents are chosen in order to show similarities and differences in American and South Korean reactions to North Korean nuclear incidents.

8.2.1 The DPRK Threatens to Withdraw from the NPT – 1993

Speculations of a North Korean nuclear weapons program started in 1993, and when the South Korean President Kim Young-sam was elected in 1993 he made clear that a “peaceful coexistence, joint prosperity, and common welfare” was his goal with the neighbor in the North. President Kim Young-sam also encouraged the Americans to praise his idea of interacting with the DPRK because he believed he had a much better policy of interacting with the North Koreans than previous South Korean regimes (Wit et al., 2004, p. 65). This new way of reaching out a hand to the regime in the DPRK changed just a week later when President Kim Young-sam told the press “I want to make clear that we cannot shake hands with any partner who has nuclear weapons” (ibid).

DPRK's threat to withdraw from the NPT was of serious concern for the Republic of Korea, but it was the United States that dominated the efforts to persuade the North Koreans not to withdraw from the treaty. President Kim Young-sam's approach is by many analysts seen as a failure, because he failed to be consistent in his reactions and policies towards the DPRK. The President was very receptive to outside pressure (Nahm & Hoare, 2004, p. cvii). When others

³⁵ The period studied in this thesis is 1993 until present day and the relationship between the two Koreas prior to 1993 will therefore not be discussed.

showed hostility towards the DPRK, President Kim Young-sam would change his way of interacting with the neighbor in the north. Even though it was hard to know how President Kim Young-sam would react to a North Korean action, he maintained a dialogue with the regime in Pyongyang, but the South Koreans were sidelined by the Americans when former President Carter started negotiations with the DPRK in June 1994. A summit was planned between the two leaders on the Korean Peninsula, but when Kim Il-sung passed away, the summit was postponed. President Kim Young-sam's refusal to express any condolences resulted in an end to all dialogue between the two countries during President Kim Young-sam's time in office (ibid).

8.2.2 The DPRK Withdraws from the NPT – 2003

Kim Dae-jung was elected president of the Republic of Korea in 1997. He stepped away from his predecessor's harsh tone towards the DPRK and adopted a way of interacting with the DPRK and reacting to its nuclear threats known as the "Sunshine Policy" (Y. Kim, 2003, p. 3). The analogy of the sunshine policy is taken from the famous Aesop's fable "the North Wind and the Sun". The point of the fable is that the Sun wins over the North wind in a dispute over which of them that could first strip a man of his clothes. The cold wind from the north makes the man wrap his clothes more tightly around him. The Sun on the other hand makes the man take one garment off after the other. The Sun represents President Kim Dae-Jung's administration of embracing and engaging with the DPRK in order to open up the closed society. The Wind from the North symbolizes the previous South Korean policy of containment represented among others by President Kim Young-sam (Y. Kim, 2003, p. 3). The Sunshine policy meant that the ROK gave rice, fertilizers and more to the DPRK. The idea behind this new way of interacting with the DPRK was to build confidence without setting conditions or demanding immediate reciprocity. The ultimate goal was to establish a relationship where people, goods and services could flow freely in and out of the DMZ (Moon, 2012, p. 17).

The interviewed diplomat (2014 [interview]) believes that the Sunshine policy went too far and was naive in terms of what Kim Dae-jung thought he could extract in return from Kim Jong-il. Moreover, the hand that the South Korean government reached out to the North came without conditions. For instance, rice rations from the ROK were basically placed on the border where it was up to the North Korean regime to distribute it to its people. The rice

probably did not primarily reach the starving North Korean population that needed it the most. Instead, it probably went straight into the hands of the military (ibid). On the other hand, one could argue that even if the food went to the military, it could nevertheless contribute to alleviating the general food situation in the North. Today, we know that it would have been very difficult for the South Koreans to extract concessions in return, because the regime in Pyongyang never intended to give in to South Korean demands. We saw that when president Roh Moo-hyun tried to negotiate a more balanced cooperation agreement with Kim Jong-il in 2010. This agreement was never implemented (ibid).

The regime in Pyongyang had threatened to withdraw from the NPT in 1993, and the DPRK followed through with this threat ten years later. President-elect Roh Moo-hyun expressed regret that the DPRK had chosen to withdraw. A South Korean government spokesperson said according to Yonhap that “Roh had urged North Korea to rescind its decision to resume nuclear facility operations and asked it to at least avoid actions that will further aggravate the situation” (CNN, 2003). The official South Korean reaction towards DPRK’s withdrawal from the NPT was of a milder character than the reaction from President Bush, and not substantial. While the United States showed disappointment over the North Korean decision, the South Korean President only urged the North Koreans not to further aggravate the situation. This mild tone might have been a result of the Sunshine Policy, because the fear of a North Korean nuclear weapons program was growing at the time. Due to the ROKs close proximity to the DPRK, one can assume that it would fear a possible North Korean nuclear threat much more than the United States would.

8.2.3 The DPRK’s First Nuclear Test – 2006

DPRK’s first nuclear test took place in 2006 during South Korean President Roh Moo-hyun’s administration. This test shocked the Republic of Korea, mainly because it had insisted on a denuclearization of the DPRK through its sunshine policy. But even though President Roh Moo-hyun was shocked, the ROK continued its engagement with the north without any interruption. The South Korean President even stated that DPRK’s nuclear weapons had a defensive and not an offensive purpose (Kang, 2009). Many nongovernmental organizations (NGOs) and the South Korean population were not worried about the threats coming from the north because they believed that the DPRK would never use nuclear weapons against them because of the Sunshine Policy (Kang, 2009). Even though the South Korean public might not

have been afraid of a nuclear attack from its neighbor, President Roh Moo-hyun's administration was scared of provoking the Kim regime in Pyongyang. President Roh Moo-hyun did not join the Bush administration's Proliferation Security Initiative (PSI) that was meant to interdict possible shipments of weapons of mass destruction by the DPRK (ibid).

The Sunshine Policy started with President Kim Dae-jung and was continued with his successor President Roh Moo-hyun. They both conducted a Sunshine Policy, but President Roh Moo-hyun was harsher and demanded more from the North Koreans than President Kim had done (Diplomat, 2014 [interview]). The presidents of the Koreas met in October 2007 where they agreed upon a lot more aid from the South to the North, but President Roh Moo-hyun wanted something in return. His Sunshine policy was one based on tit for tat (ibid). Today North Koreans, particularly in Pyongyang and other big cities, know about life in the South. This threatens to undermine the legitimacy of the regime in relations to its people and is an increasing challenge to the regime in Pyongyang. One way they are handling this is by claiming that the North Koreans are the pure Koreans who stand up to Americans and that the South Koreans are American puppets (ibid).

8.2.4 The DPRK's Second Nuclear Test – 2009

When the second North Korean nuclear test took place, there was a new South Korean President in office, President Lee Myung-bak. How to handle the DPRK was never an issue to President Lee during his election campaign. It was given that the ROK would stop fraternizing with the DPRK, if Lee Myung-bak were elected. Lee did not have to make it an issue during his campaign because it was just understood, as part of the general polarization of South Korean politics (Diplomat, 2014 [interview]).

I have met retired diplomats who have privately called President Roh Moo-hyun a traitor due to his appeasement policy toward the North. These people are otherwise reasonable people (Diplomat, 2014 [interview]).

After DPRK's second nuclear test on 25 May 2009, the South Korean government reacted tougher than during the first test. They issued a statement condemning the nuclear blast as constituting "a grave challenge to the international nonproliferation regime". The statement also said that the test was "a provocation that can never be tolerated under any circumstances", and a violation of United Nations Security Council Resolution (UNSCR)

1718 (NTI, 2009). After the test President Obama and President Lee Myung-bak agreed to "seek a stern, unified international reaction". It has also been reported afterwards that President Obama stated that the United States would continue to "provide a strong nuclear deterrence for South Korea" (NTI, 2009). In June 2009 the South Korean and the American President agreed that the DPRK would "under no circumstances" be allowed to possess nuclear weapons (NTI, 2009). President Lee also made it clear that the DPRK would be deterred by the military alliance between the United States and the ROK if they were tempted to attack the South. President Lee Myung-bak announced already on 26 May 2009 that the ROK would fully participate in the PSI, the initiative his predecessor had chosen not to be a part of (ibid).

This act in itself illustrates the two very different reactions directed at the regime in Pyongyang and suggests that President Lee Myung-bak took the nuclear threat more seriously than President Roh Moo-hyun. President Roh Moo-hyun's way of dealing with the regime in Pyongyang was clearly not efficient because the DPRK continued to pursue its nuclear weapons program. On the other hand, President Lee Myung-bak's harsher tone and reactions increased the distance between the DPRK and the ROK. The intensity and severity of the North Korean threats escalated during President Lee Myung-bak's period.

8.2.5 The DPRK's Third Nuclear test – 2013

President Kim Dae-Jung and President Roh Moo-hyun both reached out a hand to the DPRK. President Lee Myung-bak was on the contrary not outreaching. Kim Jong-Il's regime had made clear that if the South Koreans joined the PSI, this would be understood as a declaration of war. After the ROK joined the PSI, the regime in the DPRK declared that they would attack the ROK if any North Korean ships were searched. Since President Lee Myung-bak took office in 2008, the relationship between the two Koreas deteriorated (ibid). The diplomat (2014 [interview]) interviewed believes that President Lee's term – in relation to the DPRK – was a wasted one. This is due to the fact that the ROK isolated the DPRK, which in turn contributed towards pushing the Pyongyang regime into China's arms. Today, it is the Chinese who handle all new industrial projects in the DPRK. Neither the South nor the North wanted such a development, but it has occurred partly because of the ROK's tough line with the DPRK (ibid).

When the third nuclear test occurred in February 2013, the South Korean President-elect Park Geun-hye reacted by stating that

Despite the strong warning from the international community and South Korea, North Korea has conducted its third nuclear test, and we strongly condemn it. The North Korean nuclear test is a serious threat to the peace of the Korean peninsula and the world, and it has hampered the credibility between the South and North (President-elect Park Geun-hye quoted in Payne, 2013).

The new South Korean government continued President Lee Myung-bak's harsh rhetoric with the DPRK, and similarly to the United States, the ROK condemned DPRK's actions. The president-elect also made clear that the North Korean nuclear actions hampered the relationship between the two Koreas. One can argue that this relationship already was severely damaged partly due to the earlier nuclear tests and President Lee's actions.

9 Summing up: Are the Opponents Disposed to North Korean Nuclear Deterrence?

It is not straight forward to say whether or not DPRK's threats directed at the United States and the Republic of Korea are credible or not. Much information is unknown and unsure. It is therefore important to keep in mind that there are no yes or no answers when discussing the DPRK's nuclear weapons program and deterrent credibility. However, one can argue for degrees of credibility. From sources presented in this thesis, it seems clear that the DPRK has produced fissile material and successfully assembled an implosion nuclear weapon design. However, the DPRK has no reliable capability to hit targets inside the continental United States with a ballistic missile carrying a nuclear charge at this moment. It is known that the DPRK has missiles that can reach the ROK, but it is unsure if the DPRK has the reliable capability to mount a nuclear charge on a warhead at this time.

DPRK's *will* to use nuclear weapons is much more uncertain than its *ability* to use such weapons. The government in the DPRK may, according to findings in this thesis, be considered rational; however, Kim Jong-un is a very young and inexperienced leader, and his moves and tactics in the past have been rather unpredictable. It therefore does not seem like the regime Pyongyang would risk using nuclear weapons unless the consequences of not using nuclear weapons are worse than using them. Such a scenario seems unlikely because regime survival is the most important thing to Kim Jong-un, and using nuclear weapons would most likely result in the end of his regime. Simultaneously, the DPRK is aware that the United States possesses a much larger and more sophisticated arsenal of nuclear weapons than the DPRK.

According to deterrence theory, deterrence is weakened when the credibility of a threat is not complete. This implies that DPRK's nuclear weapons program does not deter as much as it could when it comes to credibility. In this relation it is important to look at how, especially, the United States has acted towards the DPRK when it has conducted nuclear tests and directed threats towards the United States. Neither the United States nor the Republic of Korea has done much more than condemning North Korean actions and supporting UNSC sanctions against the country. This could mean that neither of the countries are taking the

threats seriously, but what else could the two countries have done? What reason could have been used for a potential invasion? The DPRK has threatened the United States with conventional and nuclear weapons attack, but the country has never attacked the United States. If the United States were to intervene militarily in the DPRK, this would make the United States the attacker, and the UN could never support such an intervention. Military intervention and regime change is also what the DPRK seems to fear the most. Predicting North Korean reaction and behavior to such an event is almost impossible. It is possible that the regime in Pyongyang would risk using nuclear weapons if they perceived that to be the only option. A military intervention by the United States could be perceived as such a situation, but this again is very speculative. Prevention of the use of nuclear weapons is in everyone's best interest because the damage a nuclear weapon can cause is difficult to control the scope of. The interesting aspect with American reactions and statements directed at North Korean nuclear actions is that the language was toned down after the DPRK conducted its nuclear tests. The tone prior to tests, as in the case of President Bush's State of the Union speech, was much more severe than the subsequent reactions to the nuclear tests. This change of severity in the condemnation of North Korean behavior does not necessarily mean that the United States does not feel threatened by DPRK's actions, but due to the mismatch in military strength and the geographical distance between the two states, it is very unlikely that the DPRK would attack the United States with nuclear weapons. Furthermore, if such an attack was actually carried out, the regime in Pyongyang would most likely be eliminated, and regime survival is much of the reason behind the North Korean acquisition of nuclear weapons.

The ROK would possibly risk its own people's security and survival by taking military action against the DPRK. The DPRK attacked the Republic of Korea when the country shelled Yeonpyeong Island in 2013, killing four South Koreans. The North Koreans claimed that the South Korean military exercise in the area was carried out to attack the DPRK even though this was denied by the South Korean government. Looking at that situation with South Korean or American eyes, the North Koreans attacked the ROK unprovoked, and the ROK could have retaliated. What the ROK would have gained by retaliating is unknown and probably limited. With today's relationship between the two Koreas, condemnation and UN sanctions seem like the only probable and rational ways of reacting to North Korean nuclear threats. This means that even though South Korean reactions seem mild, they might actually imply that the ROK takes DPRK's nuclear threats seriously and that it does feel threatened. If

the South Korean government did not perceive North Korean nuclear actions as threatening, then the South Korean President would most likely let North Korean actions pass in silence.

One can argue that the United States' response has been rather weak when the DPRK has conducted its nuclear tests. This could be a sign of the United States being deterred by the DPRK, but it could also mean that the United States does not view the nuclear threat as credible. It could also mean that states choose diplomacy over military action believing that diplomacy will provide the greatest benefits in the long term, and this might have been a calculated American strategy. It is most likely a combination of a variety of well thought out calculated responses, but the DPRK might deter the United States at the moment due to uncertainties. Today it is assumed that the DPRK does not have ICBMs, but the DPRK might get this technology in the future, and how close this future is unknown. The Americans could be worried that DPRK's nuclear weapons program is bigger and more sophisticated and that tends to deter. Uncertainty contributes to deterrence.

The United States might be deterred by the DPRK because even though the North Koreans do not have a reliable capacity to hit the continental United States at this moment, the regime most likely has the capacity to hit American vital interests in the region. Some of these interests are Japan, the Republic of Korea and military bases in the Pacific. The United States is a world power and militarily superior to most states. This could mean that the country has put itself in a vulnerable situation because a country like the DPRK would see benefits in hurting a world power. The DPRK's rhetoric and threats directed at the United States at home and abroad have always been harsh and unlike any other states. One might ignore the threats because they seem too unrealistic, but when threats were directed at Guam, the United States appeared to take them seriously. Even though Guam is outside of the reliable range of North Korean ballistic missiles, the United States talked of missile shields to protect American vital interests on the island of Guam. This shows that the American government is taking North Korean threats seriously and is concerned about North Korean nuclear capabilities.

The Republic of Korea is at a much greater risk than the United States of a North Korean nuclear attack if one purely looks at DPRK's nuclear capabilities. The whole of the ROK is a vital interest due to the close proximity to the DPRK. Even though North Korean ballistic missiles have the range to hit the ROK, an attack may never occur because South Korean vital interests might coincide with North Korean vital interests. This comes in addition to the fact that any North Korean use of nuclear weapons would most likely mean the end of the Kim

regime, and due to the rationality of Kim Jong-un he would therefore not risk using nuclear weapons. If one imagines that the DPRK actually attacks the ROK with nuclear weapons, then how would Pyongyang prevent the nuclear fall-out from affecting the North? The close proximity of the two states puts the ROK at greater risk to North Korean nuclear weapons, but it could also hurt the DPRK after a possible nuclear attack.

The main research question in this thesis has been how *the United States and the Republic of Korea are disposed to the Democratic People's Republic of Korea's nuclear deterrence?* The DPRK is clearly trying to deter these two states with its nuclear weapons program. According to the deterrence theory presented in Chapter 3, the DPRK needs to have the ability and the will to attack the states it is trying to deter. The states being deterred, in this case the United States and the Republic of Korea need to have vital interests that are being threatened by North Korean nuclear weapons. To give a short answer to a complicated question, the United States and the ROK are partially disposed to DPRK's nuclear deterrence because the DPRK does not at this moment have the reliable capability to hit the continental United States with nuclear weapons, but the DPRK has the capability to hit targets in the Republic of Korea and American vital interests outside of the continental United States. Even though the DPRK can hurt the United States and the ROK with nuclear weapons, information provided in this thesis suggests that it is unlikely that Kim Jong-un would use nuclear weapons against another state because he is a rational actor and maintaining power is therefore of greatest importance to him. In short, this means that North Korean nuclear deterrence is both a myth and a reality because predicting what the DPRK will do in any given situation is almost impossible. The country is unlike any other, and one will never truly know to which degree the United States and the ROK feel threatened by North Korean nuclear weapons.

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Appendix A: List of Respondents

Interviews Conducted	
March 2014	Sverre Lodgaard , senior research fellow at the Norwegian Institute of International Affairs (NUPI)
March 2014	James Acton , a senior associate in the Nuclear Policy Program at the Carnegie Endowment
April 2014	Diplomat , several years of experience with Korean politics.

Appendix B: Interview Guide

Not all questions were asked to all the respondents, new questions were also formed during the interview and respondents also provided information not asked for by the interviewer.

On the respondent:

- Full name
- Work place, title/position, tasks
- How long worked on topics related to the DPRK, nuclear deterrence and nuclear weapons.

Deterrence

- Why do states wish to acquire or develop nuclear weapons?
- Do nuclear weapons have to be operative to deter?
- What would you say are the main reasons for the emergence and growth of DPRK's nuclear weapons program?
- What are DPRK's main goals with its nuclear weapons program?

DPRK's ability to use nuclear weapons

- What are DPRK's nuclear capabilities; do they have the ability to hit their enemies/targets?
- Do DPRK's nuclear weapons pose a threat to the United States?
- What good are DPRK's <10 nuclear weapons if the U.S. has 7,700?

The DPRK and the United States

- Does the DPRK have the will to use nuclear weapons?
- How has the United States been affected, do they feel threatened by DPRK's nuclear weapons?
- Would the United States act differently towards the DPRK if the DPRK did not have nuclear weapons?
- Are the chances for someone invading the DPRK smaller now than before they had nuclear weapons?

The DPRK and the ROK

- Why has not the ROK developed a nuclear weapons program?
- Why is there so much tension on the Korean Peninsula?
- Why has the DPRK threatened the ROK with a nuclear attack?
- Is it probable that the DPRK would attack the ROK?
- What do DPRK's nuclear weapons threaten in the ROK?
- Does the ROK perceive DPRK's threats as believable?

Is there anything else you would like to add?

Is there anyone else you think it may be useful for me to meet/talk with?

